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1987 CROP

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DURUM WHEAT QUALITY REPORT

Physical, Chemical, Milling, and Spaghetti Characteristics

United States Department of Agriculture
Agricultural Research Service
North Central Region



Source:

Spring and Durum Wheat Quality Laboratory
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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
in cooperation with
STATE AGRICULTURAL EXPERIMENT STATIONS

QUALITY EVALUATION OF DURUM WHEAT VARIETIES

1987 CROP1/

by

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1/ This is a progress report of cooperative investigations containing some results that have not been sufficiently confirmed to justify general release; interpretations may be modified with additional experimentation. Confirmed results will be published through established channels. The report is primarily a tool for use of cooperators and their official staffs and to those persons having direct and special interest in the development of agricultural research programs.

This report was compiled by the Agricultural Research Service, U. S. Department of Agriculture. Special acknowledgment is made to the North Dakota State University for their facilities and services provided in support of these studies. The report is not intended for publication and should not be referred to in literature citations or quoted in publicity or advertising. Use of the data may be granted for certain purposes upon written request to the agency or agencies involved. Cooperators submitting samples for analysis have been given analytical data on their samples prior to release of this report.

2/ Hard Red Spring & Durum Wheat Quality Lab., NDSU.

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TABLE OF CONTENTS

<u>Contents</u>	<u>Page No.</u>
Introduction	3
Source of the Samples	4
Tables of Varieties and Crosses	5-6
Methods	7
Flow Diagram for Large Durum Wheat Samples . . .	10
Flow Diagram for Small Durum Wheat Samples . . .	11
Discussion	16
Experimental Results - 1987 Crop	18
Uniform Regional Nursery Samples	18-23
Western Durum Nursery Samples	24
Field Plot Nursery Samples	25
Preliminary Nursery Samples	26
Advanced Nursery Samples	27-28
Explanation of Abbreviations	29
1987 Crop Tables No. 1 through No. 25	
Reference Mixograms	

INTRODUCTION

The twenty-fourth Durum Wheat Quality Report contains data for the 1987 crop. Samples of standard varieties and new strains of durum wheat grown in cooperative experiments in the durum wheat regions of the United States^{4/} were milled and evaluated by the Hard Red Spring and Durum Wheat Quality Laboratory in cooperation with the Department of Cereal Chemistry and Technology on the campus of North Dakota State University at Fargo, ND. Methods and techniques are described in detail in the text of the report.

All samples received that were large enough to mill on the Buhler experimental mill were processed into spaghetti using the macro spaghetti processing method as described on page 13. A five pound wheat sample is required for the above method. All other samples were milled using the micro procedure and were not processed into spaghetti. Those samples having acceptable kernel characteristics and dust color score, if possible, should be included for macro processing the following year.

The purpose of this report is to make available to cooperators the quality data on standard varieties and new selections of durum wheat from the 1987 crop.

^{4/} Cantrell, R.G. and Brosz, J. Wheat varieties grown in cooperative plot and nursery experiments in the spring wheat region in 1987. Department of Agronomy, North Dakota State University, Fargo, ND.

SOURCE OF THE 1987 CROP SAMPLES

Tests were performed on six hundred twenty-three samples from 19 stations and seven states (California, Washington, North Dakota, Idaho, Montana, Minnesota and South Dakota) for quality evaluation. Data presented in this report are from the Field Plot Nursery, Uniform Regional Nursery, Western Durum Nursery, Preliminary Nursery and the Advanced Nursery samples.

FIELD PLOTS - 14

Fargo, Minot and Langdon

UNIFORM REGIONAL NURSERY - 272

Day County and Selby - South Dakota
Crookston and Morris - Minnesota
Bozeman, Sidney and Conrad - Montana
Williston and Carrington - North Dakota

WESTERN DURUM NURSERY - 71

Aberdeen - Idaho
Royal Slope - Washington

PRELIMINARY NURSERY - 15

Tulelake - California

ADVANCED NURSERY - 251

Imperial Valley, Kings County, Delta and Davis - California

1987 UNIFORM REGIONAL DURUM NURSERY

LIST OF ENTRIES

Entry No.	Entry	Sel. or P.I. No.	Year Entered	Origin
1	Mindum	5296	1929	Minnesota
2	Ward	D6674	1969	ND-USDA
3	Rugby	D6722	1970	ND-USDA
4	Vic	D74112	1976	ND-USDA
5	Lloyd	D771*	1978	ND-USDA
6	Medora	DT433	1980	AC, Winnipeg
7	Monroe	D793	1981	ND-USDA
8	Sceptre	DT380	1985	Univ. Sask.
9	Stockholm	NHD81-466*	1984	NAPB
10	Fjord	NHD81-485	1984	NAPB
11	RLT/VIC	D8172	1985	ND
12	D7690/Vic	D8191	1985	ND
13	D7690/Vic	D8193	1985	ND
14	D783/Vic	D81151	1985	ND
15	D785/Vic	D81154	1985	ND
16	D773/Vic	D8261*	1986	ND
17	D773/Vic	D8263*	1986	ND
18	D77200/Vic	D8269*	1986	ND
19	D773/CLT	D8291*	1986	ND
20	----	FA883-323	1986	WPB
21	----	FA884-326*	1987	WPB
22	Vic Mutant	NPB86748*	1987	Konzak
23	D785/D7869	D8302	1987	ND
24	D785/Vic	D8304	1987	ND
25	D782/D7869	D8309	1987	ND
26	D782/D7869	D8311	1987	ND
27	D78121/D78181	D8370*	1987	ND
28	D78114/D78129	D8374*	1987	ND
29	D78142/D78114	D8380*	1987	ND
30	D776/D7224	D83103*	1987	ND

* Semidwarf

WESTERN REGIONAL DURUM NURSERY

LIST OF ENTRIES

Carc "S"	T83 136
Durox	T83 138
Irridur	TL 730471
Laker	TL 801045
Lloyd	TL 801065
Modoc	TL 820100
Turbo	TL 820112
Vic 1A	UC 606
Waid	UC 640
Yav "S"	UC 642
Yavaros 79	UC 686
YGA "S"	UC 714
D 74111	WPB 881
D 79209	WPB 884
FLD 87050	
FLD 87306	
FLD 87336	
HD 810466	
PBS 2008	
PBS 2105	
PBS 2120	
PBS 3113	
PBS 3215	
PBS 3429	
PBS 3509	

METHODS

The methods used in the testing of the samples were essentially the same as given in the last report.

Briefly, the following methods and terminologies were applied:

Test Weight Per Bushel - The weight per Winchester bushel of dockage-free wheat.

Thousand Kernel Weight - The 1000 kernel weight was determined by counting the number of kernels in a 10 g sample of cleaned, picked wheat on a Seeburo seed counter^{5/}.

Kernel Size - The percentage of the size of the kernels [large, medium, and small] was determined on a wheat sizer as described by Shuey^{6/}.

The sieves of the sizer were clothed as follows:

Top Sieve - Tyler # 7 with 2.92 mm opening
Middle Sieve - Tyler # 9 with 2.24 mm opening
Bottom Sieve - Tyler #12 with 1.65 mm opening

Protein Content - Both the Kjeldahl procedure and the near infrared technique were used to determine protein content. Nitrogen values, as determined by the Kjeldahl procedure, were multiplied by 5.7 to calculate protein values.

Hardness Test - This year wheat hardness scores are reported on the samples. The procedure used requires grinding the wheat samples with a UDY grinder, and obtaining data from a Technicon 400 near infrared analyzer. Wavelengths used were 1680 nm and 2230 nm. This procedure was developed by Mr. Karl Norris, USDA, Beltsville through a co-operative research project in which this Laboratory also participated. This procedure is not official and may be replaced with another in the

5/ Mention of a trademark name or proprietary product does not constitute a guarantee or warranty of the product by the U. S. Department of Agriculture, and does not imply its approval to the exclusion of other products that may also be suitable.

6/ Shuey, William C. A wheat sizing technique for predicting flour milling yield. Cereal Sci. Today 5:71 (1960).

future. Durum wheat hardness scores for the 1987 crop ranged from a low of 51 to a high of 140 with an average of 104.4.

Milling - All samples were cleaned by passing the wheat through an Emerson kicker and dockage tester and through a modified Forster scourer Model 6. The clean, dry wheat from the larger 2 kg samples was tempered in three stages: first to 12.5% moisture at least 72 hours prior to the second stage which is to add an additional 2.0% for 18 hours to give a cumulative moisture of 14.5%, then a final temper of 3.0%, 45 minutes prior to milling. The smaller 200 gram samples were pretempered to 12.5% moisture for at least 72 hours. They were then tempered to 16.5% moisture and allowed to stand overnight prior to milling.

The large field plot, preliminary and advanced samples were milled on a Buhler experimental mill specially designed for milling durum wheat. The mill is equipped with corrugated rolls throughout, and the semolina purified on a Miag laboratory purifier. All of the stock is handled pneumatically. The mill flow is shown on page 10. The purified semolina is used in testing the quality of semolina. The semolina extraction was calculated on a total products basis. Prior to milling this year's samples, the Buhler mill and purifiers were adjusted to maximize semolina yield, yet keep the speck count to an acceptable level.

The small samples were milled on a Brabender Quadrumat Jr. mill. The flow diagram of this system is shown on page 11. The unpurified semolina was rebolted on a strand sifter equipped with a #35 tyler sieve. The sample was sifted for 30 seconds. The throughs of the #35 tyler sieve were classified as rebolted semolina. The overs of the #35 tyler sieve were reground and sieved again for 30 seconds. The throughs were combined with the first sieving. This was the material tested. The overs of the #35 tyler sieve were classified as crude shorts, and the overs of the rotating #34 wire sieve were classified as bran.

Semolina Extraction - For both the macro and micro method of milling, the percent semolina extraction was calculated on a total product basis.

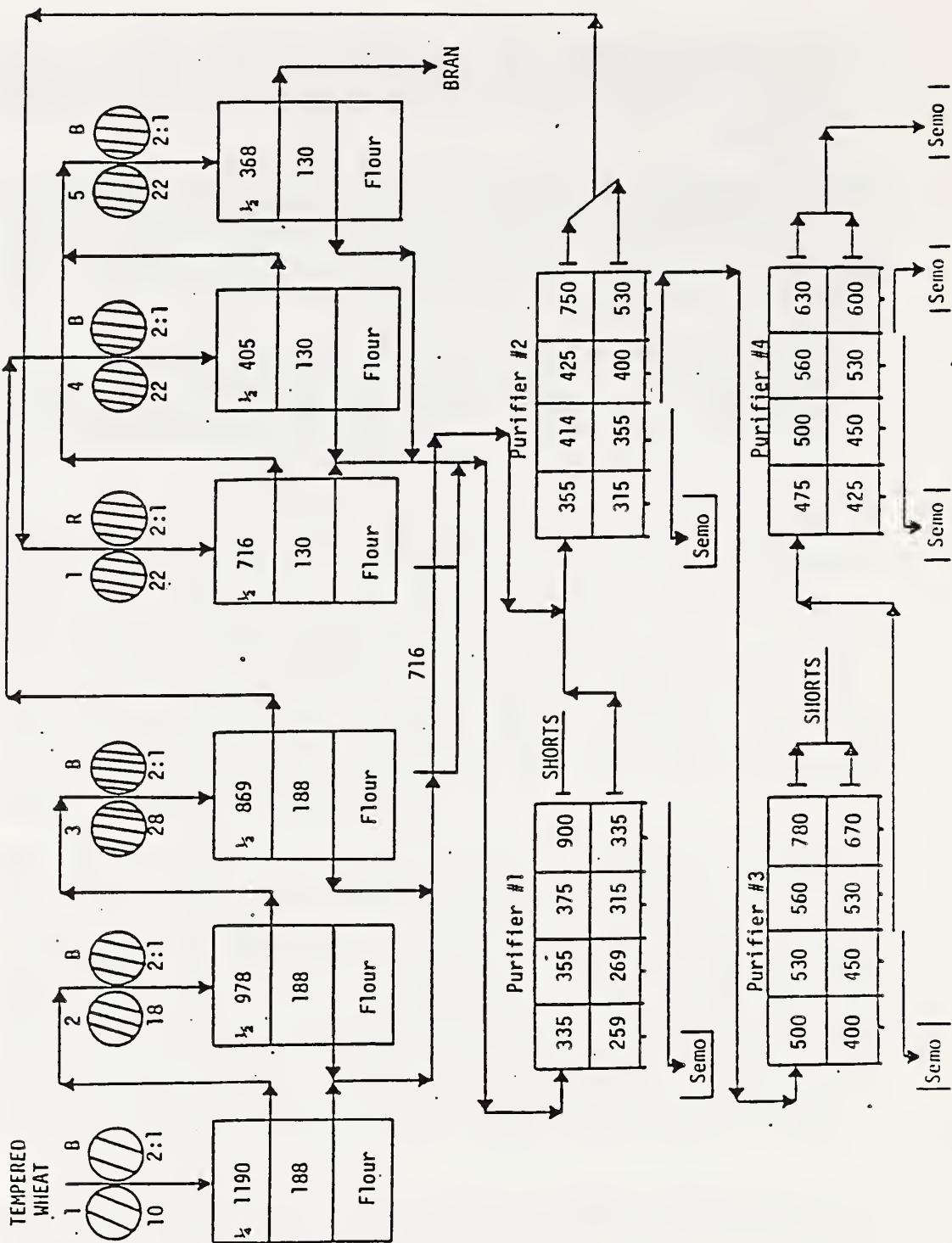
Speck Count - The number of specks in three different one-inch square areas of semolina enclosed by a special glass and frame were counted. Any materials other than pure endosperm chunks, such as bran particles, etc. were

considered specks. The average of three readings was converted to the number of specks per 10 sq in (speck count). Speck count is done only on the macro milled samples.

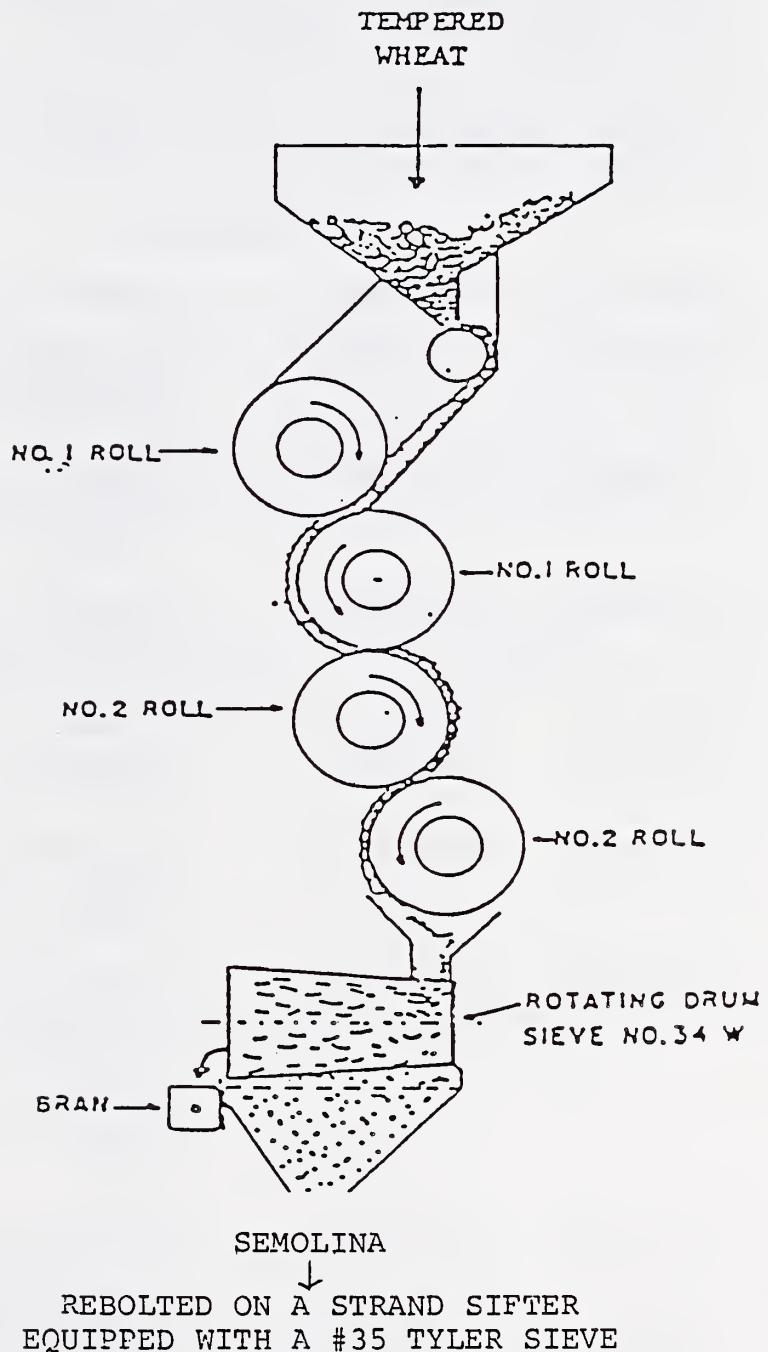
Color Score - The color of the spaghetti or semolina has been generally accepted as the most important single grading factor. A deep amber or golden color is the most preferable. The amount of yellow pigmentation determines the color.

Cooked Weight - After cooking the 10 g of spaghetti for 12 minutes, the samples were washed thoroughly with distilled water and allowed to drain in a buchner funnel for 2 minutes. The sample was then weighed, and this weight is recorded as the cooked weight.

FLOW DIAGRAM FOR LARGE DURUM WHEAT SAMPLES
MACRO PROCEDURE



FLOW DIAGRAM FOR SMALL DURUM WHEAT SAMPLES
MICRO PROCEDURE



Samples which have a color rating 1.5 point below the standard spaghetti score or 15 points below the standard semolina color score are unsatisfactory. It is possible that the average color score for a crop year may be higher or lower than average; therefore, this would be taken into consideration when giving the overall rating of a variety over a number of years.

The grading system shown below has been adopted for scoring the semolina color and spaghetti relative to the standard color score.

COLOR SCORE

<u>Semolina</u>	<u>Spaghetti</u>	<u>Description</u>
15 above	1.5 above	Much deeper and intense yellow pigmentation than standard
10 above	1.0 above	Deeper and more intense yellow pigmentation than standard
5 above	0.5 above	Slightly deeper and more intense yellow pigmentation than standard
Equal to Standard	Equal to Standard	Standard quality, depth and intensity of yellow pigmentation
5 below	0.5 below	Slightly less depth and intensity, but sufficient quantity of pigmentation
10 below	1.0 below	Slightly less quantity as well as depth and intensity of pigmentation than the standard, but still sufficient to be rated satisfactory on the basis of color
15 below	1.5 below	Sufficiently less quantity of yellow pigmentation than the standard to give a pale yellow color and graded unsatisfactory for color score.

Semolina Color Score - The semolina color score was determined by using Model D25M-9 Hunterlab tristimulus colorimeter equipped with an optical sensor and a signal processor. The instrument was calibrated using a yellow standard tile with Hunter L, a, b values of L = 77.33, a = -1.91, b = 20.94. A sample of semolina was placed in a cell normally used for near infrared analysis of flour in a Technicon 400 Infra Analyzer. This cell fits in the opening of the optical sensor. The b value was converted to a yellow color score ranging from 1-14, with 14 being a deep yellow and the most desirable color. In this report, the semolina color score, reported as "Du" in the tables, is multiplied by a factor of 10.

Spaghetti Color - The spaghetti color scores also were measured in the Model D25M-9 colorimeter. The specimen area (2 in diameter) was covered with straight spaghetti strands and readings were taken against a black background with 0% reflectance. Color difference values (L%, a% and b%) were measured for all the spaghetti samples by the method of Walsh, Gilles and Shuey^{7/}. A uniform chromaticity chart was used for determining spaghetti color scores.

MACRO Spaghetti Processing - Spaghetti was processed on a semi-commercial scale pasta extruder (DEMACO). The control as well as all samples was processed with the following extruding conditions.

Temperature 49.5°C

Rate 12 rpm

Absorption 32.5%

Vacuum 18 in Hg

These were the optimum conditions for processing spaghetti.

^{7/} Walsh, D. E., Gilles, K. A. and Shuey, W. C. Color determination of spaghetti by the tristimulus method. Cereal Chem. 46:7 (1969).

To process the spaghetti, a 1000 g batch was premixed by slowly adding the water and mixing at a slow speed for approximately 30 seconds and high speed for 10 seconds. Then the remainder of the water was added at slow speed in a Hobart C-100-T mixer equipped with a pastry knife agitator. After all of the water had been added, the semolina and water were blended at high speed for 30 seconds; the mixer was stopped to scrape down the sides of the bowl, and the blending continued for 90 seconds more to complete the premix stage. The premixed pasta was then transferred to the vacuum mixer of the press and extruded through an 84-strand 0.043 in teflon spaghetti die. A jacketed extension tube (9 $\frac{1}{4}$ " long x 1-3/4" inside diameter) was attached to the semi-commercial pasta extruder to allow more time for hydration of the semolina and minimize the number of white specks (unhydrated semolina) in the spaghetti. Extrusion temperature was controlled by a circulating water bath.

Spaghetti Drying - Spaghetti was dried in an experimental pasta dryer for an 18 hour cycle as described by Gilles, Sibbitt and Shuey^{8/}. During the drying period, the humidity of the dryer was decreased linearly from 95 to 60% R.H. and the temperature was held constant at 40°C.

^{8/} Gilles, K. A., Sibbitt, L. D. and Shuey, W. C.
Automatic laboratory dryer for macaroni products.
Cereal Sci. Today 11:322 (1966).

Cooking Characteristics of Spaghetti

A. Cooking Procedure

Spaghetti (10 g) which had been broken into lengths of approximately 5 cm, was placed into 300 ml of boiling water in a 500 ml beaker. After 12 minutes cooking, the samples were washed thoroughly with distilled water in a Buchner funnel, allowed to drain for 2 minutes and then weighed to determine cooked weight. This procedure is the same as last year, but differs from previous years, when a 1% salt solution was used and the spaghetti was cooked for 10 minutes.

B. Firmness Score

Two strands of cooked spaghetti were placed on a plexiglass plate and sheared at a 90° angle with a special plexiglass tooth. A continuous recording of distance versus force was made by the instrument during the operation. An automatic integrator was used to calculate the area under the curve (g cm) which was the amount of work required to shear the cooked spaghetti. To measure firmness, the average of three integrator scores was used, and the average work to shear was used as a measure of spaghetti firmness.

Calculations were as follows:

$$E = 0.0216 \times A \text{ (g cm)}$$

A = Average integrator reading

E = Area of curve expressed as g cm (work)

The higher the value, the firmer the spaghetti. A value of approximately 7.00 appears to be preferred.

C. Residue

This is the weight of the solids remaining after the combined cooking and washing water was evaporated.

DISCUSSION

The following discussion represents some of the basic techniques and criteria used in the milling and cooking quality evaluation of durum wheat samples. Several testing factors are used to determine the overall quality characteristics or final evaluation of a particular sample including, in general, the kernel characteristics, milling performance and cooking performance.

Each evaluation factor can be important. A sample could be of sufficiently poor quality for a given factor to eliminate it from possible future testing. However, a sample submitted for the first time and found to show little promise should be tested again to establish if it has some good promise, or no promise. A sample which is consistently rated as little promise or no promise should be discarded.

Data presented in this report were processed by using the Statistical Analysis System (SAS Institute, Inc., SAS Circle, Box 8000, Cary, NC 27511). The program developed from this system allows flexibility within the quality grading factors. This should allow us to relate more directly to industry and consumer requirements.^{9/}

In this evaluation system 11 dependent variables are used. These are test weight, 1000 kernel weight, percent small kernels, wheat protein, total extraction, semolina extraction, dust color, speck count, semolina protein, spaghetti visual color score and spaghetti firmness score. Seven additional variables are measured and included in the tables for the reader's use and information but are not used in the computerized evaluation of the samples. These are percent large kernels, hardness, mixograph score, semolina mineral, falling number, cooked weight and cooking residue.

After computing an average of each of the 11 variables for the standards from a station or nursery, the computer subtracts established values from each of the standard averages to determine major (MJ) and minor (MI) faulting limits. There are two exceptions where precise values have been assigned, which are independent of the station standards. The first exception is wheat protein, where percentages below 11.5% will be classified as MJ faults, and percentages between 11.5% - 12.5% will be MI faults (14% m.b.). The second exception is semolina protein, where percentages below 11.0% are classified as MJ faults, and percentages between 11.0 and 11.5% are classified as MI faults (14% m.b.). Hence, the wheat and semolina protein faulting values remain the same for all stations and nurseries.

^{9/} Nolte, L.L., Youngs, V.L., Crawford, R.D. and Kunerth, W.H. 1985. Computer program evaluation of hard red spring wheat. Cereal Foods World 30:227-229.

SELECTION OF STANDARDS

Whenever possible, the standards selected were named varieties grown at each location or in each nursery. In the tables of data, the varieties used as standards are identified by an "s" in the second column. At the bottom of each table are cited "average of standards". Quality deviation from these values determine the major and minor faults (note preceding paragraph). In nurseries where breeders did not grow named varieties, standard quality data were obtained from the 1987 North Dakota standard ('Vic'), which was processed separately with each nursery. This standard was grown in North Dakota, not at the particular nursery location. Other deviations are footnoted in the tables.

HOW SAMPLES ARE SCORED

Each sample is assigned an evaluation score of 4. Major and minor faults determined from the data by the computer will reduce this score, depending upon the quality factor being faulted. The effects of the different quality faults are shown in the table which follows:

DURUM PROGRAM FAULTING AND SCORING VALUES

Variable	Range ^a		Effect on Evaluation Score ^b	
	Minor fault	Major fault	Minor fault	Major fault
Test Wt. (lb/bu)	-2.2	-3.1	-	-1
1000 KWT (g)	-2.1	-5.1	-	-1
Small Kernels (%)	+5	+10	-	-1
Wheat Prot. (%)	12.5	11.5	-1	-2
Tot. Ext. (%)	-2.5	-3.5	-1	-2
Semo. Ext. (%)	-3.0	-4.0	-1	-2
Dust color	-10	-15	-2	-3
Specks/10 sq. in.	+10	+15	-	-1
Semo. Prot. (%)	11.5	11.0	-1	-2
Visual Spag. color	-1.0	-1.5	-2	-3
Firmness (g cm)	-1.5	-2.25	-1	-2

^a Wheat and semolina protein percents are fixed lower limits for faults. All other values represent the deviation from the average of the standards required to warrant a minor or major fault.

^b These values are subtracted from a beginning score of 4.

EXPERIMENTAL RESULTS - 1987 CROP

The results are tabulated and presented in the following order: Tables 1-9, Uniform Regional Nursery; Tables 10-11, Western Durum Nursery; Tables 12-14, Field Plot Nursery; Table 15, Preliminary Nursery; Tables 16-25, Advanced Nursery.

UNIFORM REGIONAL NURSERY

Two hundred seventy-two samples were received from nine stations and four states. Thirty samples were received from eight stations, and thirty-two samples were received from one station. Ten of these samples were named varieties from eight stations and twelve named varieties were from one station. The remainder were experimental lines. The word descriptions of these numerical scores are as follows: 1-1.4, no promise; 1.5-2.4, little promise; 2.5-3.4, some promise; 3.5-4.0, good promise. The discussion which follows is based on averaged data from the nine stations.

Crosby (2.0 - 2/1) 10/ - Little promise. This variety was grown in 1987 at one station only - Williston, ND.

Faults (1987 crop, Williston, ND only)

Kernel Characteristics - 1000 KWT.

Milling Performance - Semolina extraction.

Laker (2.7 - 2/0) (3 years) - Some promise. This variety was grown in 1987 at one station only - Williston, ND.

Faults (1987 crop only)

Kernel Characteristics - Satisfactory.

Milling Performance - Dust color.

Fjord (3.7 - 10/2) (3 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT, wheat protein.

Milling Performance - Semolina extraction.

10/ (Average General Evaluation - Number of Total Deficiencies/Major Deficiencies)

Lloyd (3.5 - 20/6) (3 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT, small kernels, test weight, wheat protein.

Milling Performance - Semolina extraction.

Medora (3.8 - 6/1) (3 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT, wheat protein.

Milling Performance - Semolina extraction, dust color.

Mindum (1.7 - 35/19) (3 years) - Little promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT.

Milling Performance - Dust color.

Monroe (3.8 - 5/1) (3 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - Wheat protein.

Milling Performance - Semolina extraction.

Rugby (3.9 - 10/1) (3 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT.

Milling Performance - Satisfactory.

Sceptre (3.5 - 23/6) (3 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT.

Milling Performance - Semolina extraction.

Stockholm (3.3 - 27/9) (3 years) - Some promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT, small kernels,
wheat protein.

Milling Performance - Semolina extraction.

Vic (3.9 - 2/1) (3 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - Satisfactory.

Milling Performance - Satisfactory.

Ward (3.8 - 10/1) (3 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT.

Milling Performance - Semolina extraction.

D8172 (3.7 - 16/2) (3 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT, wheat protein.

Milling Performance - Semolina extraction.

D8191 (3.7 - 6/2) (3 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - Satisfactory.

Milling Performance - Semolina extraction, dust color.

D8193 (3.8 - 9/2) (3 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT.

Milling Performance - Semolina extraction.

D8261 (3.5 - 17/3) (2 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT, small kernels,
wheat protein, test weight.

Milling Performance - Semolina extraction.

D8263 (3.9 - 6/0) (2 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT, wheat protein.

Milling Performance - Satisfactory.

D8269 (3.8 - 10/0) (2 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT, wheat protein.

Milling Performance - Dust color.

D8291 (3.1 - 22/13) (2 years) - Some promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT, small kernels,
wheat protein.

Milling Performance - Semolina extraction.

D8302 (3.7 - 5/1) (1 year) - Good promise.

Faults (1987 crop)

Kernel Characteristics - 1000 KWT.

Milling Performance - Semolina extraction.

D8304 (3.7 - 7/1) (1 year) - Good promise.

Faults (1987 crop)

Kernel Characteristics - 1000 KWT.

Milling Performance - Semolina extraction.

D8309 (3.8 - 7/1) (1 year) - Good promise.

Faults (1987 crop)

Kernel Characteristics - 1000 KWT.

Milling Performance - Semolina extraction.

D8311 (3.3 - 5/1) (1 year) - Some promise.

Faults (1987 crop)

Kernel Characteristics - 1000 KWT.

Milling Performance - Semolina extraction, dust color.

D8370 (2.4 - 15/10) (1 year) - Little promise.

Faults (1987 crop)

Kernel Characteristics - 1000 KWT, small kernels,
wheat protein.

Milling Performance - Semolina extraction, dust color.

D8374 (3.8 - 5/1) (1 year) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT.

Milling Performance - Semolina extraction.

D8380 (3.6 - 10/2) (1 year) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT, small kernels,
wheat protein.

Milling Performance - Semolina extraction.

D81151 (3.4 - 25/5) (3 years) - Some promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT.

Milling Performance - Semolina extraction.

D81154 (3.8 - 19/1) (3 years) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT.

Milling Performance - Satisfactory.

D83103 (3.9 - 4/0) (1 year) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - Test weight, 1000 KWT, small kernels, wheat protein.

Milling Performance - Satisfactory.

FA883-323 (3.8 - 5/1) (2 years) - Good promise.

Faults (1987 crop)

Kernel Characteristics - 1000 KWT.

Milling Performance - Semolina extraction.

FA884-326 (3.7 - 5/1) (1 year) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT, small kernels, wheat protein.

Milling Performance - Semolina extraction.

NPB86748 (3.6 - 6/1) (1 year) - Good promise.

Faults (1987 crop only)

Kernel Characteristics - 1000 KWT, test weight.

Milling Performance - Semolina extraction.

WESTERN DURUM NURSERY

Aberdeen, ID and Royal Slope, WA - Tables 10-11

Seventy-one samples were received from two stations in two states. All analyses were done the same as for the Uniform Regional Nursery using our micro procedure. For Aberdeen, ID our 1987 standard was used as the standard. The average general score for Aberdeen was 2.3. Semolina extraction and dust color were the two main areas for deficiencies. This data is in Table 10. Our 1987 standard and Lloyd were used as the standards for Royal Slope. The average general score for Royal Slope was 3.0. Dust color was the major faulting area for this station. This data is reported in Table 11.

FIELD PLOT NURSERY

Fargo, Minot and Langdon, North Dakota - Tables 12-14

Fourteen samples were received from these three stations; all were named varieties. All samples were milled, and the semolina was processed into spaghetti using our macro method. Vic was used as the standard from all three stations.

PRELIMINARY NURSERY

Tulelake, California - Table 15

Fifteen samples were received from this station. Our 1987 standard was used as the standard. All analyses were done the same as for the Uniform Regional Nursery using our micro procedure. The average general score for this station was 1.3. The major faulting area for this station was semolina extraction and dust color.

ADVANCED NURSERY

A total of 251 samples were received from four stations in one state. All samples were milled, and the semolina was processed into spaghetti using our macro method.

Imperial Valley, California - Table 16

Twenty-nine samples were received from this station. Aldura and Mexicali were used as the standards. The average general score for this station was 3.0.

Kings County, California - Table 17

Twenty-nine samples were received from this station. Aldura and Mexicali were used as the standards. The average general score for this station was 2.4.

Delta area, California - Table 18

Twenty-nine sample were received from this station. Aldura and Mexicali were used as the standards. The average general score for this station was 1.0.

Imperial Valley, California - Table 19

Forty-three samples were received from this set. Aldura, Mexicali 75 and Yavaros were used as the standards. The average general score for this station was 1.2.

Imperial Valley, California - Table 20

Twenty-one samples were received in this set. Aldura, Mexicali 75 and Westbred 881 were used as the standards. The average general score for this set was 3.3.

Davis, California, Experiment #720 - Table 21

Twenty-eight samples were received from this station. Aldura and Mexicali 75 were used as the standards. The average general score for this experiment was 1.1.

Davis, California, Experiment #721 - Table 22

Twenty-six samples were received in this set. Aldura and Mexicali 75 were used as the standards. The average general score for this experiment was 2.0.

Davis, California, Experiment #722 - Table 23

Twenty samples were received in this set. Altar was used as the standard. The average general score for this experiment was 2.2.

Davis, California, Experiment #723 - Table 24

Thirteen samples were received in this set. Aldura was used as the standard. The average general score for this experiment was 1.5.

Davis, California, Experiment #724 - Table 25

Thirteen samples were received in this set. Aldura was used as the standard. The average general score for this experiment was 1.7.

EXPLANATION OF ABBREVIATIONS
LISTED UNDER THE HEADINGS AND UNDER
MINOR AND MAJOR DEFICIENCIES ON TABLES

MINOR AND MAJOR DEFICIENCIES ON COMPUTER PRINTOUT

S or STD = Standard
TW = Test Weight

1000 KWT or KW = 1000 Kernel Weight
LG = % Large Kernels
SM = % Small Kernels

WHT PRO or WP = Wheat Protein
TOT EXT or TX = Total Extraction (Semolina Plus
Flour)
SEMO EXT or SX = Semolina Extraction
DUS or DU = Semolina Dust Color Score (High
score is more desirable)

MX = Mixograph Score (The higher the number, the
stronger the curve)
SPK or SK = Semolina Speck Count
SEMO MIN = Semolina Mineral

FALL NO = Semolina Falling Number Value (Values
above 300 are desired)
SEMO PRO or SP = Semolina Protein

VI = Spaghetti Visual Color Score (The higher
the score, the more desirable)
FIRM or FR = Cooked Spaghetti Firmness Score
(Approx. 6.50 to 8.50 is the
desirable range)

RES = Residue in Water of Cooked Spaghetti
VALU = Sample Evaluation Number (Example 4 =
Good Promise)

QUALITY DATA OF DURUM SAMPLES 1987 CROP
 STATE=SOUTH DAKOTA STATION=DAY CO. NURSERY=UNIFORM

TABLE 1

VARIETY	STD	TEST WT	1000 K.WT	% LS_SM	WHT PRO	HARD NESS	SEMO EXTR	DUST COLOR	MIXD SCR	SCORE ***	TW KW SM WF SX DU	DEFICIENCIES
FJORD	S	61.7	34.7	14	3	17.1	130	50.2	95	8	3	MI
LLOYD	S	57.6	33.7	5	8	17.9	124	55.1	95	8	4	MI
MEDOEA	S	61.1	32.9	7	3	17.9	129	52.5	85	7	4	MJ
MINDUM	S	61.5	32.3	6	4	17.2	120	54.3	65	3	1	MJ
MONROE	S	60.0	35.1	8	3	16.9	128	49.4	80	7	2	MJ
RUGBY	S	60.1	31.2	4	7	17.8	132	59.6	90	4	4	MI
SCEFTREE	S	60.1	31.5	8	3	17.0	124	52.0	85	6	4	MI
STOCKHOLM	S	60.2	30.1	2	12	16.8	118	46.5	85	5	2	MI MI MJ
VIC	S	61.2	35.5	5	9	17.9	128	51.6	85	7	4	MI
WARD	S	61.0	33.3	3	4	18.0	122	54.1	85	4	4	MI
D 8172		60.6	32.9	3	5	16.9	130	49.5	80	6	2	MJ
D 8191		60.6	34.2	5	4	17.7	131	49.4	80	7	2	MJ
D 8193		59.9	31.8	6	4	17.4	136	43.3	85	7	2	MJ
D 8261		59.5	29.8	3	11	17.2	123	47.1	90	7	2	MI MI MJ
D 8263		59.7	30.4	2	9	17.4	120	52.8	95	8	4	MI
D 8269		59.8	33.0	3	8	17.2	121	52.1	85	6	4	MI
D 8291		58.4	29.2	1	18	17.7	125	45.8	90	5	1	MI MJ
D 8302		59.9	30.3	3	9	16.6	121	48.4	90	5	2	MI MJ
D 8304		60.2	32.5	2	8	17.1	127	60.0	105	8	4	MI
D 8309		60.7	30.5	3	8	17.6	136	44.9	80	8	2	MJ
D 8311		61.2	33.6	4	6	16.8	124	50.5	80	8	3	MI MJ
D 8370		58.6	27.5	2	17	17.0	127	42.9	80	7	1	MI
D 8374		60.2	34.2	4	7	16.4	128	48.4	90	6	2	MJ
D 8380		60.9	31.6	3	9	16.6	116	48.8	95	6	2	MI
D 81151		59.5	30.1	3	8	17.6	122	50.0	95	7	3	MI
D 91154		60.8	31.8	4	5	17.8	129	52.8	100	8	4	MI
D 83103		59.4	33.2	7	5	16.4	112	50.7	100	6	4	MI
FA 883323		61.1	36.2	9	2	17.0	122	47.7	90	5	2	MI
FA 884-326		59.3	31.3	4	10	16.0	119	50.0	90	7	3	MI MI
NFB 86743		61.0	32.7	11	5	17.2	128	53.3	90	7	4	MI

DEFICIENCIES
 AVG OF STANDARD S
 MINOR FAULTING VALUES
 MAJOR FAULTING VALUES

IN FW SM WF SX DU

59.9 34.2 5 17.9 53.6 63
 57.7 32.1 10 12.5 50.6 70
 56.8 29.1 15 11.5 49.6 73

** EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 2
QUALITY DATA OF DURUM SAMPLES 1987 CROP
STATE=SOUTH DAKOTA STATION=SELBY NURSERY=UNIFORM

VARIETY STD	TEST WT	1000 K.WT	% LS SM	WHT PRO	HARD NESS	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	TW KW SM WP SX DU	DEFICIENCIES
FJORD	S	61.4	38.3	38	3	13.3	120	61.8	100	6	MI
LLOYD	S	58.3	41.2	33	2	13.4	112	61.4	90	6	MI
MEDORA	S	60.4	39.7	38	1	13.6	114	57.5	90	4	MJ
MINDUM	S	58.2	33.7	26	3	13.9	97	54.2	65	1	MJ
MONROE	S	61.3	46.7	61	2	13.3	111	59.6	85	4	MJ
RUGBY	S	60.8	39.1	43	1	13.7	119	56.1	85	1	MI
SCEPTRE	S	59.0	36.6	37	1	14.5	111	53.5	85	5	MJ
STOCKHOLM	S	59.4	39.5	30	1	13.9	105	51.6	85	4	MI
VIC	S	60.2	44.2	51	0	14.0	117	55.8	85	3	MI
WARD	S	60.8	40.0	39	1	13.9	122	50.0	85	1	MI
D 8172	D	60.2	37.3	29	1	13.8	123	54.5	80	3	MI
D 8191	D	57.8	39.7	45	1	14.6	118	54.7	85	5	MI
D 8193	D	59.2	41.3	51	1	14.1	117	56.5	90	5	MI
D 8261	D	59.9	40.0	42	0	13.3	114	60.8	95	5	MI
D 8263	D	59.3	39.8	37	1	13.7	103	58.8	95	5	MI
D 8269	D	58.7	43.5	33	0	13.6	113	61.1	75	4	MI
D 8291	D	58.8	38.8	36	2	13.4	122	54.0	85	4	MI
D 8302	D	60.7	38.6	19	2	13.6	108	57.5	85	5	MI
D 8304	D	59.7	39.7	39	0	14.1	112	59.5	100	6	MI
D 8309	D	60.9	39.7	31	1	14.1	115	64.4	85	6	MI
D 8311	D	62.1	40.7	32	2	15.1	114	56.3	85	6	MI
D 8370	D	57.8	33.7	22	3	14.1	106	52.1	80	4	MI
D 8374	D	58.2	38.3	27	3	14.2	107	54.4	90	4	MI
D 8380	D	58.6	35.8	17	4	13.9	99	59.3	95	5	MI
D 81151	D	58.2	36.8	36	3	13.4	110	58.2	100	5	MI
D 81154	D	59.4	37.5	32	3	14.1	111	57.6	95	6	MI
D 83103	D	59.2	41.5	48	2	13.9	101	58.9	95	6	MI
FA 863-323	FA	59.6	41.7	43	2	13.3	103	61.0	90	4	MI
FA 888-432	FA	61.3	42.0	45	3	13.3	103	59.3	85	7	MI
NFB 8674B	NFB	61.0	40.3	47	2	14.0	112	57.6	90	6	MI

DEFICIENCIES
AVG OF STANDARDS
MINOR FAILING VALUES
MAJOR FAILING VALUES

TW

KW

SM

WP

SX

DU

87

77

72

*** EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 3

QUALITY DATA OF DURUM SAMPLES
STATE=MINNESOTA STATION=CROOKSTON
NURSEFY=UNIFORM

VARIETY STD	TEST WT	1000 K.WT	% LG_SM	WHT FFD	HARD NESS	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES			
										TW	KW	SM	WP
FJORD	S	62.5	42.6	65	1	14.5	109	64.4	95	6	4		
LLOYD	S	60.3	47.6	62	1	14.0	102	67.1	85	5	4		
MEDORA	S	61.7	43.7	63	1	15.2	105	65.0	85	5	4		
MINDUM	S	62.7	44.8	65	2	14.4	104	67.1	70	3	1		MJ
MONDEE	S	61.8	47.1	71	1	14.7	103	66.8	90	4	4		
RUGBY	S	62.4	41.5	55	1	14.5	102	65.3	85	2	4		
SCEPTRE	D	61.3	44.2	48	3	14.5	96	65.4	85	4	4		
STOCKHOLM	D	61.6	39.4	46	2	13.8	96	66.8	90	4	4		
VIC	S	61.9	47.4	70	1	14.8	102	66.7	90	4	4		
WARD	S	62.1	40.3	55	1	14.5	103	65.1	85	3	4		
D 8172	D	62.5	42.0	45	1	14.7	103	67.4	85	5	4		
D 8191	D	62.2	43.7	57	1	14.1	99	66.8	85	5	4		
D 8193	D	62.0	45.7	65	2	14.7	103	65.9	90	6	4		
D 8261	D	61.1	46.3	60	2	13.9	94	67.1	90	5	4		
D 8263	D	61.3	44.6	57	2	13.8	95	66.5	95	5	4		
D 8269	D	60.4	46.3	52	1	14.1	95	66.2	80	5	4		
D 8291	D	60.6	42.0	39	2	14.1	97	65.3	90	5	4		
D 8302	D	61.7	42.7	47	2	13.9	102	63.0	85	3	3		
D 8304	D	60.0	39.7	41	1	15.1	103	61.0	90	5	2		
D 8309	D	62.1	40.7	46	3	14.7	102	64.5	80	5	4		
D 8311	D	62.8	30.0	48	2	15.2	106	64.4	80	6	3		
D 8370	D	61.6	38.3	25	3	13.1	96	63.8	80	3	3		
D 8374	D	61.3	44.4	43	2	13.8	98	65.9	85	4	4		
D 8380	D	62.6	40.7	34	2	13.4	93	65.3	90	4	4		
D 81151	D	62.1	43.5	52	1	13.7	96	65.5	95	4	4		
D 81154	D	61.5	42.6	51	1	14.4	98	67.0	95	4	4		
D 83103	D	62.1	47.6	69	1	14.1	97	66.5	95	4	4		
FA 883-323	FA	61.8	46.7	66	1	14.2	99	65.9	90	4	4		
FA 884-326	FA	61.2	45.0	64	1	13.3	101	65.6	85	4	4		
NFB 86748	NFB	61.3	42.4	57	1	14.6	97	62.8	90	4	3		

DEFICIENCIES
AVG. OF STANDARDS
MINOR FAULTING VALUES
MAJOR FAULTING VALUES

TW KW SM WP SX DU

61.2 43.9 1 14.3 66.1 85

59.0 41.8 6 12.5 63.1 75

58.1 38.9 11 11.5 62.1 70

*** EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 4

QUALITY DATA OF DURUM SAMPLES 1987 CROP
 STATE=MINNESTOA STATION=MORRIS NURSERY=UNIFORM

VARIETY STD	TEST WT	1000 K.WT	% LG_SM	WHT FRO	HARD NESS	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES			
										TW	KW	SM	WF
FJORD	S	61.5	42.0	52	3	14.4	100	62.6	100	4	4	4	4
LLOYD	S	59.0	45.0	49	3	14.6	97	61.6	95	5	5	4	4
MEDORA	S	61.0	43.1	57	3	14.2	99	62.3	90	1	1	4	4
MINDUM	S	61.9	40.2	43	4	13.5	93	65.4	75	2	2	5	5
MONROE	S	60.9	46.3	62	3	14.1	96	65.4	90	5	5	4	4
RUGBY	S	61.2	40.7	53	4	14.3	102	63.6	90	2	2	4	4
SCEPTRE	S	60.2	40.3	47	3	14.4	100	63.0	95	4	4	4	4
STOCKHOLM	S	59.7	41.5	32	5	14.4	99	62.6	90	5	5	4	4
VIC	S	60.6	46.5	59	3	14.9	99	64.2	90	2	2	4	4
WARD	S	61.2	40.0	51	4	13.9	93	64.2	90	4	4	4	4
D 8172	S	61.0	40.3	38	4	14.8	98	66.2	85	4	4	4	4
D 8191	D	60.1	42.2	52	4	14.0	100	63.0	85	3	3	4	4
D 8193	D	60.8	40.8	51	4	14.4	94	63.6	90	4	4	4	4
D 8261	D	59.9	41.7	48	4	14.1	95	64.1	95	4	4	4	4
D 8263	D	58.8	42.9	49	4	14.1	96	61.4	95	4	4	4	4
D 8269	D	58.6	40.0	38	5	14.3	91	62.6	85	4	4	4	4
D 8291	D	58.9	39.8	33	4	13.7	88	62.1	95	3	3	4	4
D 8302	D	59.9	41.8	45	5	14.0	100	61.5	90	4	4	4	4
D 8304	D	59.2	41.3	39	5	14.6	92	60.5	100	5	5	4	4
D 8309	D	60.0	38.9	43	4	15.1	96	61.9	85	6	6	4	4
D 8311	D	61.6	43.5	47	3	14.7	101	63.6	85	6	6	4	4
D 8370	D	60.4	36.2	21	7	12.9	93	61.6	85	3	3	4	4
D 8374	D	59.7	41.0	28	5	14.4	94	62.8	95	5	5	4	4
D 8380	D	60.0	41.8	31	5	13.9	93	65.3	95	4	4	4	4
D 81151	D	60.6	44.2	52	4	13.9	95	66.4	95	3	3	4	4
D 81154	D	60.2	41.8	44	3	14.9	95	64.2	100	4	4	4	4
D 83103	D	60.2	41.8	45	4	14.1	90	64.8	100	5	5	4	4
FA 883-3223	FA	59.2	41.7	45	4	14.8	97	63.8	95	4	4	4	4
FA 804-3226	FA	58.2	38.3	34	5	14.9	98	62.1	85	6	6	3	3
NFB 86768	NFB	57.8	38.8	43	3	16.1	95	60.1	90	5	5	4	4

DEFICIENCIES TW FW GM WF SX DU
 AVG OF STANDARDS 60.3 43.8 3 14.5 63.3 92
 MINOR FAULTING VALUES 50.1 41.7 0 12.5 60.3 82
 MAJOR FAULTING VALUES 57.2 38.7 13 11.5 59.3 77

** EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 5
STATE=MONTANA STATION=BOZEMAN NURSERY=UNIFORM
QUALITY DATA OF DURUM SAMPLES 1987 CROP

VARIETY STD	TEST WT	1000 K.WT	% LG SM	WHT PRO	HARD NESS	SEMO EXTR	DUST COLOR	MIXO SCR	*** SCR	SCORE	DEFICIENCIES
F JORD	62.2	46.3	69 0	15.2	103	64.4	95	4	4	4	
LLOYD	62.6	54.6	80 0	13.5	97	66.1	85	4	4	4	
MEDORA	63.0	46.5	69 1	15.6	98	65.1	90	4	4	4	
MINDUM	62.5	44.2	56 2	15.4	99	64.5	70	2	1	4	MJ
MONROE	62.2	48.1	73 2	14.9	98	65.0	85	3	4	4	
RUGBY	62.2	45.0	62 0	15.8	100	64.4	85	2	4	4	MI
SCEFTRE	61.7	45.5	66 1	15.4	99	65.5	80	3	4	4	
STOCKHOLM	62.1	47.6	60 0	14.1	96	65.1	90	4	4	4	
VIC	61.8	47.4	72 0	15.3	96	65.9	90	4	4	4	
WARD	61.4	39.7	48 1	15.7	97	64.1	90	2	2	3	MJ
D 8172	62.8	47.8	66 1	15.4	103	68.5	85	3	4	4	
D 8191	63.0	49.3	75 1	14.7	103	66.2	85	4	4	4	
D 8193	62.3	47.6	73 0	14.9	100	67.3	90	5	4	4	
D 8261	62.6	48.8	71 0	13.7	93	68.2	85	5	4	4	
D 8263	63.0	49.3	73 1	13.6	87	68.2	95	5	4	4	
D 8269	62.3	44.4	64 0	13.8	97	67.3	80	4	4	4	
D 8291	60.4	49.8	48 1	14.1	89	66.1	90	3	4	4	
D 8302	62.4	45.7	64 1	14.8	100	65.3	85	3	4	4	
D 8304	61.4	43.9	66 0	15.3	97	63.8	95	6	4	4	
D 8309	63.1	46.7	71 0	14.6	100	67.4	80	7	4	4	
D 8311	62.8	45.8	63 0	15.4	106	64.2	80	7	4	4	
D 8370	62.3	43.1	51 0	13.7	97	63.9	80	3	4	4	
D 8374	62.8	48.5	67 2	13.6	102	66.2	85	4	4	4	
D 8380	63.0	43.5	61 1	13.4	94	65.6	95	4	4	4	MI
D 81151	61.7	44.6	71 1	14.8	96	67.6	90	3	4	4	MI
D 81154	62.2	45.2	65 2	14.2	94	66.4	100	5	4	4	
D 83103	62.6	52.1	76 0	14.1	94	66.5	90	4	4	4	
FA 883-323	62.3	48.3	68 0	14.8	103	66.8	85	5	4	4	
FA 884-326	62.1	49.3	70 0	13.5	102	67.7	85	5	4	4	
NFB 66748	60.6	44.1	73 0	15.3	98	62.4	85	4	4	4	MI

DEFICIENCIES
AVG OF STANDARDS
MINOR FAULTING VALUES
MAJOR FAULTING VALUES

IW KW SM WF SX DU

61.9 47.2 0 14.0 65.4 80

59.7 45.1 5 12.5 62.4 78

58.0 42.1 10 11.5 61.4 73

** EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 6 STATE=MONTANA STATION=SIDNEY NURSERY=UNIFORM

VARIETY STD	TEST WT	1000 K.WT	% SM	WHT PRO	HARD NESS	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES			
										TW	KW	SM	WF
FJORD	S	63.8	44.2	62	1	13.9	94	63.3	105	7	4	4	4
LLOYD	S	62.2	42.4	23	2	13.0	85	63.0	95	6	4	4	4
MEDORA	S	63.2	40.7	50	0	14.1	34	63.0	95	6	4	4	4
MINDUM	S	64.3	40.8	45	1	13.8	81	65.1	80	3	1	1	1
MONROE	S	62.9	47.6	59	0	14.5	93	63.3	95	6	4	4	4
RUGBY	S	63.4	42.4	53	2	14.2	90	63.3	90	3	4	4	4
SCEFTRE	S	61.5	39.1	39	2	14.1	88	61.5	90	6	4	4	4
STOCKHOLM	S	63.0	42.6	32	2	13.3	89	63.0	95	6	4	4	4
VIC	S	63.8	45.5	55	2	14.1	89	65.1	95	6	4	4	4
WARD	S	63.6	39.7	41	2	14.1	91	63.8	95	3	4	4	4
D 81172	D	63.2	42.0	29	2	14.2	94	66.7	90	6	4	4	4
D 81191	D	63.0	45.8	59	1	13.8	87	66.2	90	6	4	4	4
D 81193	D	63.7	42.0	58	2	13.7	86	64.7	95	7	4	4	4
D 8261	D	63.6	40.0	35	2	13.7	84	66.1	100	6	4	4	4
D 8263	D	64.2	44.2	53	1	13.2	83	63.8	100	6	4	4	4
D 8269	D	62.7	40.5	12	2	13.6	84	67.7	95	6	4	4	4
D 8291	D	61.4	35.8	10	3	13.4	82	62.6	95	5	3	3	3
D 8302	D	62.6	41.5	39	2	13.2	87	61.8	95	4	4	4	4
D 8304	D	62.5	40.7	41	2	13.9	88	63.0	105	8	4	4	4
D 8309	D	63.5	39.8	47	2	13.9	93	66.8	90	8	4	4	4
D 8311	D	63.8	42.7	45	0	14.7	95	63.6	85	8	2	2	2
D 8370	D	62.6	38.9	14	5	12.7	83	63.4	85	3	1	1	1
D 8374	D	63.7	41.3	42	3	13.3	87	67.9	95	5	4	4	4
D 8380	D	63.7	38.0	30	3	12.8	87	67.0	100	5	4	4	4
D 81151	D	62.2	37.6	27	2	13.6	88	65.0	100	5	4	4	4
D 81154	D	62.8	38.2	34	2	13.7	85	66.5	100	7	4	4	4
D 83103	D	63.2	43.3	52	1	13.1	84	66.7	100	7	4	4	4
FA 883-323	FA	63.9	41.2	48	0	12.9	82	67.1	100	6	4	4	4
FA 884-326	FA	63.0	44.6	55	1	12.7	89	67.1	90	7	4	4	4
NFB 86748	NFB	63.8	42.4	50	0	14.0	89	64.5	95	7	4	4	4

DEFICIENCIES
AVG OF STANDARDS
MINOR FAULTING VALUES
MAJOR FAULTING VALUES

TW KW SM WF SX DU
63.2 42.5 2 13.7 64.0 95
61.0 40.4 7 12.5 61.0 95
60.1 37.4 12 11.5 60.0 80

** EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 7

QUALITY DATA OF DURUM SAMPLES
1987 CROP
STATE=MONTANA STATION=CONRAD NURSERY=UNIFORM

VARIETY	STD	TEST WT	1000 K.WT	% LG_SM	WHT PRO	HARD NESS	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	TW KW SM WP SX DU	DEFICIENCIES
FJORD	S	63.0	41.2	55	2	12.5	126	68.2	90	5	MI	MI
LLOYD	S	63.2	47.1	63	2	10.7	110	69.3	85	3	2	MJ
MEDORA	S	62.2	44.8	65	1	13.1	120	49.5	90	4	2	MJ
MINDUM	S	63.6	40.8	52	2	13.5	88	69.3	75	3	2	MI
MONROE	S	61.8	45.7	64	2	12.1	106	69.2	90	4	3	MI
RUGBY	S	62.5	43.9	60	3	13.1	117	65.6	80	2	4	MJ
SCEPTRE	S	62.2	43.7	58	2	12.6	107	63.0	80	4	2	MI
STOCKHOLM	S	63.9	43.9	50	1	12.0	89	67.5	80	3	3	MI
VIC	S	62.8	43.5	47	1	13.4	103	66.4	90	6	4	MI
WARD	S	62.5	41.8	46	2	12.7	113	65.9	85	2	2	MI
D 8172		62.2	39.1	31	3	12.4	126	67.7	80	4	0	MI
D 8191		63.2	45.5	64	2	12.8	86	67.3	75	6	2	MI
D 8193		62.2	41.7	54	1	13.0	95	67.1	85	6	4	MI
D 8261		64.0	42.6	60	1	11.4	92	69.3	85	3	2	MI
D 8263		64.2	46.1	63	0	12.2	93	68.5	90	4	0	MI
D 8269		62.7	44.6	47	0	12.2	86	69.9	80	4	0	MI
D 8291		61.1	37.6	12	3	12.5	88	63.6	95	5	1	MJ
D 8302		62.7	43.5	57	1	12.8	93	66.5	80	4	4	MI
D 8304		62.3	41.8	52	1	13.5	99	63.4	90	6	0	MI
D 8309		62.9	39.7	39	1	13.0	95	68.0	80	6	4	MI
D 8311		62.9	42.6	48	1	13.6	93	65.5	80	7	4	MI
D 8370		62.6	38.2	18	2	11.4	80	65.8	75	3	1	MJ
D 8374		62.1	41.8	53	1	13.4	96	64.8	90	4	4	MI
D 8380		63.5	40.7	36	1	11.9	89	67.1	85	3	0	MI
D 81151		62.6	41.7	57	2	12.6	87	67.1	85	3	4	MI
D 81154		63.2	41.8	52	1	13.3	94	68.0	90	5	4	MI
D 83103		63.4	46.1	70	0	11.6	83	68.9	85	4	0	MI
FA 883-323		63.1	44.2	59	0	13.1	84	68.9	85	4	4	MI
FA 884-326		63.6	46.9	70	1	11.9	94	70.2	80	4	0	MI
NFB 86748		62.6	43.3	64	0	13.5	94	67.3	85	4	4	MI

DEFICIENCIES
AVG OF STANDARDS
MINOR FAULTING VALUES
MAJOR FAULTING VALUES

TW

KW

SM

WP

SX

DU

3=NO PROMISE

2=LITTLE PROMISE

3=SOME PROMISE

4=GOOD PROMISE

*** EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 8
QUALITY DATA OF DURUM SAMPLES
STATE=NORTH DAKOTA STATION=WILLISTON NURSERY=UNIFORM
1987 CROP

VARIETY	STD	TEST WT	1000 K.WT	% LG_SMI	WHT FRO	HARD NESS	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	TW	KW	SM	WP	SX	DU	DEFICIENCIES
CROSEY		61.0	37.5	29	1	15.9	102	55.8	85	3	2	4	2	2	2	MI	MJ
FJORD		62.4	42.6	53	1	15.6	93	62.1	100	6	6	4	4	4	4	MI	
LAKER	S	60.9	50.0	75	3	15.8	100	62.4	80	8	8	2	2	2	2	MI	
LLOYD		61.4	45.5	52	1	14.5	92	62.4	95	7	7	4	4	4	4	MI	
MEDORA		61.4	37.7	24	1	16.3	103	60.6	95	7	7	4	4	4	4	MI	MJ
MINDUM		61.6	39.2	46	1	15.3	87	64.3	75	3	3	1	1	1	1		
MONEOE		60.8	40.5	36	1	15.2	95	63.8	95	7	7	4	4	4	4	MI	
RUGBY		61.5	36.6	25	2	15.7	100	62.0	90	3	3	4	4	4	4	MI	
SCEPTRE		61.0	37.2	36	1	15.8	94	61.5	90	7	7	4	4	4	4	MI	
STOCKHOLM		61.8	42.4	32	1	14.7	91	63.4	90	7	7	4	4	4	4		
VIC	S	61.6	39.4	28	0	15.5	99	64.8	95	7	7	4	4	4	4	MI	
WARD	S	61.7	36.8	25	1	15.7	98	58.6	90	4	3	3	3	3	3	MI	MI
D 8172		61.4	36.5	18	1	15.6	100	64.5	90	7	7	4	4	4	4	MI	
D 8191		61.4	40.0	47	1	15.4	95	64.3	85	7	7	4	4	4	4		
D 8193		61.7	40.3	46	1	15.3	93	62.7	90	8	8	4	4	4	4		
D 8261		61.1	44.4	56	0	15.2	93	63.8	100	8	8	4	4	4	4		
D 8263		61.5	42.2	39	1	14.8	89	61.3	100	7	7	4	4	4	4		
D 8269		61.2	44.4	36	0	15.5	96	64.5	85	7	7	4	4	4	4		
D 8291		61.0	39.5	24	1	15.3	92	60.7	95	7	7	4	4	4	4		
D 8302		61.4	37.9	21	1	14.9	101	61.5	95	5	5	4	4	4	4		
D 8304		60.9	36.2	12	1	16.8	91	59.4	100	8	8	4	4	4	4		
D 8309		60.8	36.8	26	0	15.5	97	63.1	90	8	8	4	4	4	4		
D 8311		62.3	38.3	19	1	15.5	95	61.0	85	8	8	4	4	4	4		
D 8370		60.6	35.1	17	2	14.4	90	61.2	85	6	6	3	3	3	3		
D 8374		61.6	43.5	58	2	14.9	94	64.3	90	6	6	4	4	4	4		
D 8380		62.2	38.8	27	2	14.3	98	63.7	95	6	6	4	4	4	4		
D 81151		62.0	37.5	15	2	15.0	97	62.9	100	7	7	4	4	4	4		
D 81154		61.8	37.3	23	1	15.1	96	62.6	100	6	6	4	4	4	4		
D 83103		61.0	41.5	45	1	14.8	90	63.2	100	6	6	4	4	4	4		
FA 883-323		61.8	40.0	30	2	14.5	94	63.6	95	6	6	4	4	4	4		
FA 884-326		60.8	39.7	30	2	13.5	89	63.1	95	6	6	4	4	4	4		
NPR 86748		61.3	39.2	36	2	15.5	93	61.4	90	7	7	4	4	4	4		

DEFICIENCIES
AVG. OF STANDARDS
MINOR FAULTING VALUES
MAJOR FAULTING VALUES

TW

KW

SM

WP

SX

DU

MI

MJ

MI

MI

MI

MI

***EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 9

QUALITY DATA OF DURUM SAMPLES 1987 CROP
 STATE=NORTH DAKOTA STATION=CARRINGTON NURSERY=UNIFORM

VARIETY	STD	TEST WT	1000 K.WT	% LG SM	WHT FRO	HARD NESS	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES			
											TW	KW	WP	SX
FJORD	S	56.7	31.2	12	8	15.4	87	61.2	105	4	8	2	2	MI
LLOYD	S	47.1	22.8	2	18	17.6	93	53.9	100	8	8	2	2	MI
MEDORA	S	50.5	23.6	4	14	17.4	87	55.3	85	5	5	2	4	MI
MINDUM	S	54.3	29.7	14	7	16.0	84	60.3	95	7	7	4	4	MI
MONROE	S	54.5	28.3	14	7	14.9	74	59.4	95	7	7	4	4	MI
RUGBY	S	58.1	33.0	23	5	14.8	98	62.1	95	3	3	4	4	MI
SCEPTRE	S	56.0	33.9	33	5	15.2	92	60.6	95	7	7	4	4	MI
STOCKHOLM	S	50.9	23.8	2	19	16.5	84	56.9	95	8	8	4	4	MI
VIC	S	54.9	29.2	11	8	16.1	89	59.8	95	8	8	4	4	MI
WARD	S	55.2	29.8	8	8	15.7	98	59.6	95	4	4	4	4	MI
D 8172	S	55.8	29.3	5	10	15.8	91	61.0	90	4	4	4	4	MI
D 8191	S	53.8	28.4	13	8	15.6	80	59.8	90	8	8	4	4	MI
D 8193	S	52.6	26.3	8	9	16.3	91	59.9	95	8	8	4	4	MI
D 8261	S	49.4	23.0	3	17	17.5	92	56.2	100	8	8	4	4	MI
D 8263	S	51.0	22.2	3	15	16.9	74	57.5	100	8	8	4	4	MI
D 8269	S	52.3	26.7	3	12	15.8	88	60.6	95	8	8	4	4	MI
D 8291	S	52.4	26.0	3	14	14.9	79	60.6	100	8	8	4	4	MI
D 8302	S	52.6	27.0	8	10	16.4	91	55.1	95	5	5	4	4	MI
D 8304	S	54.8	26.4	3	13	16.5	85	57.3	105	8	8	4	4	MI
D 8309	S	54.5	31.2	11	7	16.7	89	61.2	90	8	8	4	4	MI
D 8311	S	57.0	30.7	13	6	16.4	92	60.6	85	8	8	2	2	MI
D 8370	S	53.7	24.4	3	16	15.3	86	57.3	90	8	8	4	4	MI
D 8374	S	52.7	24.6	2	15	15.5	87	58.9	100	8	8	4	4	MI
D 8380	S	51.8	22.4	1	20	15.9	71	55.7	100	8	8	4	4	MI
D 81151	S	52.2	25.8	7	19	16.0	83	57.1	100	7	7	4	4	MI
D 81154	S	54.9	26.6	4	12	16.3	86	58.6	105	8	8	4	4	MI
D 83103	S	50.1	24.5	2	20	16.6	84	56.9	100	8	8	4	4	MI
FA 883-323	S	54.2	30.6	10	10	15.7	87	61.4	100	8	8	4	4	MI
FA 884-326	S	51.4	27.8	7	19	16.2	84	57.1	90	8	8	4	4	MI
NFB 86748	S	51.3	26.3	4	13	17.1	89	46.7	95	8	8	2	2	MI

DEFICIENCIES
 AVG OF STANDARDS
 MINOF FAULTING VALUES
 MAJOR FAULTING VALUES

TW KW SM WP SX DU
 52.4 27.3 11 16.5 57.0 97
 50.2 25.2 16 12.5 54.8 87
 49.3 22.2 21 11.5 53.8 82

** EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 10

QUALITY DATA OF DIVISION SAMPLES 1987 CENSUS

STATE=IBAHU STATION=AEBEDEEN NUSSEY=WESTERN REGIONAL DURUM

VARIETY STD	TEST WT	K.WT	L6_SM	% L6_SM	WT FRO	HARD NESS	DUST COLOR	SEMO EXTR	MIXO SCR	SCORE ***	DEFICIENCIES					
											TW	KW	SM	WF	SX	DU
ND STD VIC	S	57.2	34.1	45.0	15.4	107	64.9	59.8	59.8	4	MJ	MJ	MJ	MJ	MJ	MJ
CARO 'S'		62.5	41.0	71.2	14.2	87	63.9	90	90	1	4	2	2	3	1	4
DURUX		60.1	39.1	57.3	13.9	87	59.0	85	85	3	1	3	2	3	1	4
IRRIDUR		62.8	49.8	80.2	13.0	85	65.0	80	80	4	3	4	3	3	2	3
LAKER		60.8	43.9	63.2	12.5	81	62.7	90	90	1	1	1	1	1	1	1
LLOYD		58.8	31.1	43.2	13.6	51	65.4	40	40	4	4	5	5	5	4	4
MODOC		60.7	40.7	44.3	13.3	77	63.8	100	100	1	1	1	1	1	1	1
VIC 1A		57.0	31.2	18.6	13.8	83	59.1	90	90	1	1	1	1	1	1	1
WAID		62.7	45.2	65.2	11.8	80	63.3	75	75	1	1	1	1	1	1	1
YAV 'S'		60.9	35.1	65.2	13.3	51	63.1	40	40	1	1	1	1	1	1	1
YAVA'DS 79		62.7	38.2	45.3	12.3	85	63.8	85	85	1	1	1	1	1	1	1
YGA 'S'		61.0	38.6	47.2	12.7	83	63.8	90	90	1	1	1	1	1	1	1
D 790209		57.7	43.3	64.2	13.7	84	60.3	75	75	1	1	1	1	1	1	1
FLD 87050		52.4	31.0	15.6	14.4	75	55.9	95	95	1	1	1	1	1	1	1
FLD 87306		60.2	41.5	54.2	12.6	87	63.5	100	100	1	1	1	1	1	1	1
FLD 87336		61.6	39.4	42.6	13.0	78	63.8	90	90	1	1	1	1	1	1	1
HD 810466		59.0	44.2	64.2	15.0	87	61.6	85	85	1	1	1	1	1	1	1
FBS 02000		59.2	36.9	46.9	14.3	87	60.1	95	95	1	1	1	1	1	1	1
FBS 02105		62.0	48.5	83.2	13.4	84	64.8	85	85	1	1	1	1	1	1	1
FBS 02120		61.2	43.3	62.2	14.1	91	59.4	90	90	1	1	1	1	1	1	1
FBS 03113		63.4	47.4	77.1	12.5	81	60.4	70	70	1	1	1	1	1	1	1
FBS 03215		59.2	40.7	62.1	14.3	87	60.6	85	85	1	1	1	1	1	1	1
FBS 03429		59.0	44.2	72.6	14.1	85	61.5	70	70	1	1	1	1	1	1	1
FBS 03509		58.6	37.9	40.6	13.7	83	57.9	90	90	1	1	1	1	1	1	1
TL 730471		59.5	37.9	37.6	13.8	84	60.6	90	90	1	1	1	1	1	1	1
TL 80022-1		62.2	49.0	80.2	13.2	79	63.3	80	80	1	1	1	1	1	1	1
TL 801045		60.5	44.8	70.6	13.5	84	63.0	90	90	1	1	1	1	1	1	1
TL 801065		59.6	40.0	63.6	14.2	85	60.7	95	95	1	1	1	1	1	1	1
TL 820100		61.0	41.7	61.6	12.7	60	63.4	60	60	1	1	1	1	1	1	1
TL 82-112		60.2	42.9	63.3	13.9	93	61.9	85	85	1	1	1	1	1	1	1
UC 000606		58.8	43.1	55.2	13.4	87	61.5	95	95	1	1	1	1	1	1	1
UC 000640		60.1	41.2	73.1	13.2	78	62.4	95	95	1	1	1	1	1	1	1
UC 000642		62.5	42.9	77.1	12.9	82	61.4	95	95	1	1	1	1	1	1	1
UC 000636		63.5	40.5	58.2	11.8	84	64.4	95	95	1	1	1	1	1	1	1
UC 000714		63.5	40.5	58.2	11.8	84	64.4	95	95	1	1	1	1	1	1	1
WPB 381		55.6	35.6	49.1	15.9	77	60.6	95	95	1	1	1	1	1	1	1

DISTINGUISHES	1=NO PROMISE	2=LITTLE PROMISE	3=SOME PROMISE	4=GOOD PROMISE
Avg. OF STANDARDS	60.9	39.2	0	15.4
MINOR FAULTING VALUES	53.7	36.4	5	12.5
MAJOR FAULTING VALUES	57.0	33.4	10	11.5

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 11 STATE=WASHINGTON STATION=FOYAL SLOPE NURSERY=WESTERN REGIONAL DURUM

VARIETY STD	TEST WT	1000 K.WT	% LG SM	WHT PRO	HAED NESS	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES			
										TW	FN	SM	WP
STD VIC	S	60.9	38.2	45	0	15.4	107	64.9	90	6	3	1	MJ
CAROL'S		61.7	43.1	16	3	12.3	90	64.1	60	3	1	MJ	MJ
DURUX		61.1	50.5	78	2	13.0	101	63.3	85	3	4		
IRENDUR		63.4	43.9	68	2	13.3	95	62.6	85	3	3		
LAKER	S	63.6	51.3	80	2	12.8	84	67.0	80	3	4		
LLCYD		62.6	51.8	72	2	12.9	96	66.4	85	3	4		
MODOC		62.8	42.4	67	2	12.9	73	63.5	60	3	1	MJ	MJ
TURBO		63.6	51.5	80	3	13.0	99	64.5	85	3	4		
VIC 1A		64.1	49.8	72	2	12.5	88	68.2	90	3	3		
WAID		62.6	41.5	60	3	12.6	92	63.6	80	1	4		
YAV 'S'		63.9	49.5	74	2	12.3	87	65.1	75	2	1	MJ	MJ
YAVAROS 79		63.8	51.0	77	2	12.3	80	65.3	70	1	1	MJ	MJ
YGA 'S'		64.4	43.1	70	3	12.0	96	66.8	80	3	3		
D 79209		63.1	42.9	65	2	12.6	90	66.2	85	2	4		
FLD 87050		62.1	51.3	78	2	13.8	89	64.4	70	1	1		
FLD 87306		62.2	44.4	59	3	13.0	98	62.6	85	1	3		
FLD 87336		62.6	46.5	74	3	12.7	94	64.2	100	4	4		
HD 810466		64.0	47.1	71	2	12.3	82	65.8	85	3	3		
FBS 2008		63.0	47.1	73	3	13.3	94	66.7	75	3	2		
FBS 2105		62.3	54.3	86	2	13.1	92	63.0	75	2	2		
FBS 2120		62.6	48.8	78	3	13.6	93	63.3	80	3	4		
FBS 3113		64.1	46.7	79	2	13.4	91	62.3	85	3	3		
FBS 3215		63.1	49.0	75	2	13.3	100	64.4	65	3	1		
FBS 3429		63.0	48.8	77	2	13.6	102	62.7	80	4	4		
FBS 3509		62.2	50.8	83	1	13.8	99	63.0	70	4	1		
T 63 136		61.7	44.1	71	2	12.1	87	63.2	70	3	1		
T 63 138		63.6	47.1	22	2	13.0	93	65.3	80	2	4		
TL 730471		63.4	43.3	68	2	12.5	75	64.7	55	3	1		
TL 801045		63.8	51.8	80	2	13.4	97	63.2	80	3	4		
TL 801065		62.8	51.0	76	3	13.4	94	65.6	75	2	2		
TL 820100		63.0	42.0	68	2	13.1	92	64.4	85	3	4		
TL 820112		63.4	47.4	78	1	13.1	91	65.0	80	0	4		
UC 606		63.1	44.4	69	2	13.6	92	63.6	80	3	4		
UC 640		62.7	51.5	78	2	12.8	83	65.6	80	0	4		
UC 642		63.2	47.6	75	3	13.5	92	66.8	80	3	4		
WPB 881		62.5	51.0	84	2	14.4	95	66.4	85	6	4		
WPB 884		62.6	51.0	84	2	14.3	98	65.3	85	6	4		

DEFICIENCIES

TW FN SM WP SX DU

AVG OF STANDARDS

MINOR FAULTING VALUES 59.5 42.9 6 12.5 65.6 88

MAJOR FAULTING VALUES 58.6 39.9 11 11.5 61.6 78

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 12 STATE=NORTH DAKOTA STATION=FARGO NURSERY=FIELD PLOT

VARIETY	#/BU	WT G.	K.WT %	TEST 1000 SIZING		WHT %	HARD-% PRO %	FALL NESS %	TOTAL NO SEC %	SEMOL EXTR %	SPK %	ASH %	COLOR %	SCORE	DUST %	MIXO %
				WT	SM %											
LLOYD	60.1	38.0	26	3	1.64	14.6	104	338	77.5	59.0	33	0.67	95	5		
RUGBY	61.9	40.7	36	2	1.49	14.5	120	400	78.6	60.2	23	0.58	90	1		
VIC	S	61.5	44.8	58	2	1.50	15.0	115	400	76.9	60.4	47	0.61	95	5	
WAED	61.9	41.0	47	1	1.55	14.9	118	400	78.8	60.7	36	0.60	90	1		

QUALITY DATA OF DURUM SAMPLES 1987 CROP

VARIETY	#/BU	WT G.	K.WT %	TEST 1000 SIZING		WHT %	FIRMNESS %	COLOR RES	SCORE ***	DEFICIENCIES									
				WT	COL %					TW	VIS	COOK	SM	MP	TX	SX	DU	SP	VIT
LLOYD	12.4	9.5	31.3	6.52	5.8	3											MJ		
RUGBY	13.6	9.5	33.3	5.23	5.6	3											MI		
VIC	S	14.0	9.5	30.5	7.00	5.3	4										MI		
WAED	14.0	9.0	32.9	5.25	5.7	3											MI		

DIFFICIENCIES
 AG OF STANDARDS 61.5 41.8 7 15.0 76.9 60.4 75 47 44.6 9.5 7.09
 MINOR LAB FAILURES 50.0 42.7 7 12.5 74.4 57.4 85 57 11.9 0.5 5.53
 MAJOR FAILURES 50.0 39.7 12 11.5 73.4 56.4 90 62 14.6 0.6 4.33

*EXTRA DEFICIENCY NO PROFILE, 2nd LITTLE PROFILE, 3rd GOOD PROFILE, 4th GOOD PROFILE

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 13

		STATE=NORTH DAKOTA		STATION=MINOT		NURSERY=FIELD PLOT								
		TEST	1000	SIZING	WHT	HARD-FALL	TOTL	SEMO	SEMO	DUST	MIXO			
VARIETY		WT	#/BU	K.WT	LG	SM	PRO	NESS	NO SEC	EXTR	SPK	ASH	COLOR	SCORE
LLOYD		61.4	44.4	43	0	1.24	12.8	123	400	77.8	59.6	50	0.53	90
RUGBY		62.6	40.0	44	0	1.24	13.8	129	400	77.9	59.9	33	0.50	85
VIC		62.4	43.7	45	0	1.24	13.9	128	400	77.7	59.7	23	0.50	90
WAED		62.9	43.3	49	0	1.27	14.2	127	400	76.7	59.0	27	0.49	85

QUALITY DATA OF DURUM SAMPLES 1987 CROP

		STATE=NORTH DAKOTA		STATION=MINOT		NURSERY=FIELD PLOT												
		SEMO	VIS	COOK	FIRM- WT	RES	SCORE	DEFICIENCIES										
VARIETY		STD	PRO	COL	%	6.	**	TW	KW	SM	WF	TX	SX	DU	SK	SP	VI	FR
LLOYD		11.8	9.5	31.3	6.91	5.5	3											
RUGBY		12.9	9.5	32.9	5.64	5.5	4											
VIC		13.3	9.5	31.8	5.68	5.8	4											
WAED		13.1	9.0	33.0	5.49	5.5	4											

DEFICIENCIES
 AVG OF STANDARDS 62.4 43.7 0 13.9 77.7 59.7 90 24 13.3 9.5 5.63
 MINOR FAULTS 97.1% 60.2 41.6 5 12.5 75.2 56.7 89 33 11.5 6.5 4.33
 MAJOR FAULTS 59.3 33.6 10 11.5 74.2 55.7 75 33 11.0 8.0 3.63
 *EVALUATION 1=NO PROBLEMS, 2=A LITTLE PROBLEMS, 3=SOME PROBLEMS, 4=GOOD PERFORMANCE

QUALITY DATA OF DURUM SAMPLES 1987 CROP

STATE=NORTH DAKOTA STATION=LANGDON NURSERY=FIELD PLOT

TABLE 14

VARIETY	TEST	1000		SIZING		WHT		WHIT		HARD-FALL		TOTAL		SEMO		SEMO		DUST		MIXO	
		WT	%	K. WT	%	SM	%	ASH	%	FEO	%	NESS	%	NO SEC	%	EXT%	%	SPK	%	ASH	%
CANDO	57.5	33.4	24	4	1.91	13.4	100	267	75.4	57.8	43	0.72	80	2							
LLOYD	52.7	31.9	19	5	2.13	15.3	87	304	74.8	56.3	63	0.82	90	6							
MONGOE	55.4	40.0	50	2	2.03	15.5	98	360	76.3	58.8	99	0.77	80	6							
RUGBY	58.2	35.5	36	3	1.93	13.9	101	338	78.1	59.8	90	0.73	85	3							
VIC	S 56.8	34.6	37	3	1.99	14.6	94	275	76.2	57.8	77	0.74	85	5							
WARD	59.5	37.7	47	2	1.90	14.3	98	307	78.2	60.7	97	0.75	80	3							

QUALITY DATA OF DURUM SAMPLES 1987 CROP

STATE=NORTH DAKOTA STATION=LANGDON NURSERY=FIELD PLOT

VARIETY	TEST	SEM		COOK		FIRM-		SCORE		DEFICIENCIES											
		STD	PRO	WT	COL	WT	RES	***	TW	WT	SM	WP	TX	SX	DJ	SK	SP	VI	FR		
CANDO	12.5	9.5	32.1	5.08	6.0	3														MI	
LLOYD	14.2	9.0	30.7	8.29	5.5	3														MJ	
MONGOE	14.3	9.0	31.5	9.21	5.6	3														MI	
RUGBY	12.9	9.5	32.5	6.44	5.6	3														MI	
VIC	S 13.8	9.5	30.5	8.10	5.6	4														MJ	
WARD	13.2	9.5	31.5	6.33	6.0	2														MJ	

DIFFICIENCIES TW IWT SM WT IX SX DW SK SP VI FR
 AVG OF STANDARDS 56.8 31.6 3 14.6 76.2 57.8 05 77 13.6 9.5 8.10
 MINOR FAULTING VALUES 54.6 32.5 8 12.5 73.7 54.8 75 07 11.5 8.5 6.60
 MAJOR FAULTING VALUES 53.7 29.5 12 11.5 72.7 53.9 70 92 11.0 8.0 5.05

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 15

QUALITY DATA OF DURUM SAMPLES 1987 CROP

STATE=CALIFORNIA STATION=TULELAKE NURSERY=PRELIMINARY

VARIETY	STD	TEST WT	1000 K.WT	% LG_SM	WHT PRO	HARD NESS	SEMO EXTR	DUST COLOR	MIXD SCR	SCORE ***	DEFICIENCIES TW KW SM WF SX DU
ND STDVIC	S	60.9	38.2	45	0	15.4	1.07	64.9	90	6	MJ MJ MI MI MJ MJ
TL 75-393	55.0	33.6	31	7	13.8	1.06	54.8	80	2	1	
TL 75-409	58.6	40.8	46	2	13.5	1.22	54.5	90	2	2	
TL 75-409(2)	61.8	49.8	84	2	12.8	1.14	61.1	80	2	1	
TL 80-1057	60.9	50.3	80	2	12.7	1.03	61.1	80	1	1	
TL 80-1065	60.6	51.3	79	2	13.1	1.00	61.4	80	1	1	
TL 80-1097	59.3	42.0	56	2	11.9	1.14	56.9	75	2	1	
TL 80-1102	60.2	41.5	59	3	13.2	1.11	54.4	80	2	1	
TL 80-1107	57.1	38.2	40	3	13.9	1.18	53.0	85	2	1	
TL 80-1253	60.5	39.5	50	2	12.9	1.13	57.6	75	3	1	
TL 81-1527	60.4	49.5	77	3	12.4	1.00	59.3	65	2	1	
TL 81-1530	60.6	51.3	84	3	12.3	1.30	61.9	65	2	1	
TL 81-1532	61.4	46.1	67	2	12.6	1.08	57.9	85	0	2	
TL 82-48	61.0	43.9	60	1	13.7	1.11	57.9	90	2	2	
TL 82-1113	61.5	41.8	58	3	13.0	1.11	54.9	80	1	1	
TL 82-123	62.8	40.0	34	2	13.7	1.08	58.6	85	1	2	

DEFICIENCIES
AVG OF STANDARDS 60.9 38.2 0 15.4 64.9 90
MINOR FAULTING VALUES 58.7 36.1 5 12.5 61.9 80
MAJOR FAULTING VALUES 57.8 33.1 10 11.5 60.9 75

***EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1987 CROP

STATE=CALIFORNIA STATION=IMPERIAL VALLEY NURSERY=ADVANCED

TABLE 16

TEST	1000	SIZING	WHT	WHT	HARD-	FALL	TOTL	SEMO	SEMO	DUST	MIXO
VARIETY-----	WT	K.WT	LG	SM	ASH	PRO	NESS	NO	EXTR	SPK	COLOR
#/EU	WT	6.	%	%	%	%	SEC	%	%	%	SCORE
ALDURA	S	63.8	43.7	62	1	1.72	13.6	134	400	79.2	57.1
ALDURA 84	S	65.6	45.0	72	0	1.64	12.7	123	400	79.3	61.5
FRIGATE 'S'	S	63.5	44.2	67	3	1.80	14.7	121	400	78.1	61.1
MEXICALI	S	63.1	50.8	80	2	1.74	12.9	117	400	77.7	61.2
STIFFTAIL 4	S	65.1	54.6	90	1	1.62	13.4	117	400	78.4	60.7
WAHA 'S'	S	64.2	44.4	58	2	1.82	13.3	120	400	78.2	60.0
WESTBRED TURBO	S	63.5	58.5	87	0	1.75	13.7	109	400	77.1	59.3
WESTBRED 881	S	62.3	55.9	87	1	1.88	14.9	114	400	77.0	59.4
YAVAROS	S	65.8	56.5	89	0	1.54	12.7	122	400	77.6	60.5
CD 251-26	S	65.0	40.3	62	0	1.74	13.3	128	400	77.5	59.7
FPH 883-2	S	63.8	45.7	68	0	1.81	14.4	118	400	77.6	60.5
FPH 883-15	S	61.9	53.5	88	0	1.89	15.3	122	400	78.1	59.4
PH 884-11	S	63.6	48.8	69	0	1.74	13.6	124	400	76.9	60.2
PH 884-32	S	63.5	43.5	50	0	1.88	13.6	123	400	77.2	60.8
PH 884-57	S	63.4	51.0	82	0	1.72	12.6	126	400	78.4	61.5
UC 640	S	63.9	54.1	86	0	1.74	14.1	121	400	77.6	61.5
UC 707	S	64.0	44.1	59	0	1.74	13.6	121	400	77.3	59.6
UC 708	S	63.9	45.7	63	0	1.87	14.0	123	400	77.1	59.3
UC 709	S	64.5	42.9	60	1	1.78	13.5	121	400	77.4	59.7
UC 710	S	64.5	45.2	63	1	1.78	13.8	124	400	77.8	59.9
UC 711	S	64.7	46.9	73	1	1.84	13.0	113	400	74.9	57.5
UC 712	S	64.0	55.2	88	1	1.72	13.7	122	400	77.7	60.9
UC 713	S	64.9	51.0	74	1	1.68	13.3	121	400	77.3	61.0
UC 738	S	65.0	45.0	71	2	1.78	14.1	130	400	77.0	59.4
UC 739	S	65.1	44.6	75	1	1.81	13.8	122	400	76.0	58.3
UC 740	S	64.7	48.5	61	1	1.83	13.6	130	400	75.3	57.2
UC 741	S	64.6	48.1	86	1	1.83	14.3	123	400	75.2	57.3
UC 742	S	64.4	49.5	77	1	1.71	14.0	126	400	76.8	59.5
UC 743	S	65.3	51.3	89	1	1.74	13.9	137	400	76.9	61.0

QUALITY DATA OF DURUM SAMPLES 1937 CROP

TABLE 16 (Cont.) STATE=CALIFORNIA STATION=IMPERIAL VALLEY NURSEY=ADVANCED

VARIETY	STD	PRO	%	SEM0	VIS	COOK	FIRMNESS	RES	***	DEFICIENCIES						
										TW	KW	SM	WP	TX	SX	DU
				G.	G.	G.	G.	G.	G.							SK
																SF
																VI
																FR
ALDURA '84	S	12.1	9.5	31.3	5.34	6.8	4			MI						
FRIGATE 'S'	S	11.5	9.0	30.8	5.53	7.8	3			MI						
MEXICALI	S	13.4	9.0	31.3	5.55	7.1	4			MI						
STIFFTAIL '4	S	11.4	9.0	30.8	5.79	6.6	3			MI						
WAHA 'S'	S	11.9	8.0	29.8	5.94	7.1	1			MJ						
WESTBRED TURBO		12.1	9.5	30.6	5.14	7.0	4			MI						
WESTBRED 881		12.2	9.5	30.7	5.53	7.3	4			MJ						
YAVAROS		13.6	9.5	30.1	6.35	6.4	4			MJ						
CD 251 '26		11.2	8.0	31.3	5.05	6.3	1			MJ						
PH 893-2		11.6	9.5	30.7	5.12	6.7	3			MJ						
PH 883-15		13.0	10.0	30.2	6.31	6.8	4			MJ						
PH 884-11		14.0	9.5	30.1	6.37	5.9	3			MJ						
PH 884-32		12.1	9.5	30.0	6.39	6.3	4			MJ						
PH 884-57		12.1	9.5	31.7	6.00	7.0	4			MJ						
UC 640		11.3	9.5	30.8	5.94	6.5	3			MJ						
UC 707		12.4	9.0	34.0	4.90	6.3	3			MJ						
UC 708		12.2	8.5	30.8	6.35	7.0	1			MJ						
UC 709		12.5	9.0	33.0	4.41	6.4	2			MJ						
UC 710		12.0	9.0	31.0	5.68	6.6	4			MJ						
UC 711		12.7	9.5	31.4	6.22	6.7	4			MJ						
UC 712		11.7	10.0	33.0	4.43	7.4	1			MJ						
UC 713		12.3	9.5	31.0	6.05	7.1	4			MJ						
UC 738		11.9	9.5	31.0	5.36	6.4	4			MJ						
UC 739		12.9	9.0	33.3	4.58	5.9	1			MJ						
UC 740		12.1	9.5	32.4	5.85	6.9	3			MJ						
UC 741		12.9	10.0	31.8	5.83	7.1	3			MJ						
UC 742		13.0	10.0	32.1	5.21	6.4	2			MJ						
UC 743		12.4	9.5	30.6	6.31	6.4	3			MJ						
		12.6	9.5	30.2	6.37	6.5	3									

DEFICIENCIES
AVG OF STANDARDS 63.4 47.2 2 13.2 78.4 59.1 95 37 11.7 9.3 5.56
MINOR FAULTING VALUES 61.4 45.1 7 12.5 75.9 56.1 85 47 11.5 9.3 4.06
MAJOR FAULTING VALUES 60.3 42.1 1.2 11.5 74.9 55.1 80 52 11.0 7.8 3.31

* EVALUATION 1 NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1907 CROP

TABLE 17 STATE=CALIFORNIA STATION=KINGS CO. NURSERY=ADVANCED

VARIETY	TEST	1000		SIZING		WHT		HARD-FALL		TOTL		SEMO		DUST		MIXO	
		WT	#/BU	K-WT	LG	SM	ASH	FRO	NESS	NO	EXTR	%	SPK	ASH	COLOR	SCORE	%
ALDURA	S	62.9	46.3	70	1	1.38	12.3	134	400	78.5	60.0	67	0.54	95	2	2	
ALTAR 84		64.8	45.0	70	1	1.37	12.3	104	400	78.6	60.9	37	0.55	85	2	2	
FRIGATE 'S'		64.4	46.3	71	1	1.40	13.3	114	400	78.4	59.9	67	0.56	85	2	2	
MEXICALI	S	63.2	55.9	83	1	1.37	11.8	127	400	75.6	58.5	53	0.56	85	3	3	
STIFFTAIL 4		64.6	56.5	85	1	1.29	12.7	131	400	78.4	60.9	63	0.53	75	3	3	
WAHA 'S'		64.3	48.5	73	1	1.47	13.2	139	400	78.6	61.7	60	0.59	85	2	2	
WESTBRED TURBO		64.6	55.6	85	1	1.31	12.9	128	400	75.3	57.9	37	0.51	90	2	2	
WESTBRED 881		63.2	57.8	91	1	1.47	14.2	134	400	76.3	58.5	47	0.56	95	6	6	
YAVAROS		65.2	54.1	80	2	1.32	12.1	140	400	76.2	58.4	77	0.53	80	3	3	
CD 25126		65.2	41.7	64	2	1.39	12.3	133	400	76.0	57.6	67	0.54	95	3	3	
FH 883-2		64.6	51.8	88	0	1.46	14.1	135	400	76.4	59.0	47	0.57	100	8	8	
FH 883-15		63.0	55.9	92	0	1.55	14.0	127	400	75.9	56.5	47	0.63	85	5	5	
FH 884-11		63.4	51.0	80	1	1.38	12.0	131	400	76.9	50.7	40	0.56	90	4	4	
FH 884-32		64.1	45.2	57	2	1.47	12.7	128	400	76.1	58.1	77	0.59	95	3	3	
FH 884-57		63.8	56.5	80	0	1.38	12.0	123	400	77.5	60.7	43	0.61	90	3	3	
UC 640		63.4	53.5	86	0	1.38	12.8	131	400	76.4	57.9	60	0.53	90	1	1	
UC 707		62.3	38.0	43	1	1.48	12.4	123	400	78.5	58.7	33	0.56	75	4	4	
UC 708		64.4	50.8	78	1	1.41	13.6	137	306	76.5	58.7	57	0.50	80	1	1	
UC 709		64.2	44.2	67	0	1.34	13.5	131	400	76.9	58.3	57	0.53	80	2	2	
UC 710		64.7	49.0	77	0	1.55	14.4	118	400	74.2	56.6	67	0.57	95	3	3	
UC 711		64.6	47.4	77	1	1.46	13.1	120	400	75.3	56.6	43	0.54	105	1	1	
UC 712		63.9	53.2	86	0	1.41	13.0	120	379	76.3	57.2	37	0.60	95	4	4	
UC 713		64.4	52.4	71	1	1.36	12.2	126	400	74.9	57.3	33	0.52	95	3	3	
UC 738		65.1	46.9	66	2	1.52	13.8	116	400	77.1	56.0	40	0.58	80	1	1	
UC 739		65.3	51.8	82	0	1.46	13.5	132	400	73.6	55.7	60	0.58	95	2	2	
UC 740		64.8	47.8	80	0	1.49	13.9	124	400	73.2	55.1	50	0.56	100	2	2	
UC 741		65.1	54.9	90	0	1.56	15.0	134	400	72.7	54.5	37	0.60	95	1	1	
UC 742		64.1	51.5	83	2	1.45	13.6	128	400	76.7	56.7	63	0.58	85	2	2	
UC 743		65.6	55.6	91	1	1.43	14.0	140	400	75.6	57.7	60	0.60	85	3	3	

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 17 (Cont.) STATE=CALIFORNIA STATION=KINGS CO. NURSERY=ADVANCED

VARIETY----	STD	SEM	VIS	COOK	FIRM-NESS	RES	SCORE ***	DEFICIENCIES--TW KW SM WF TX SX DU SK SF VI FR G.					
								%	G.	G.	G.	G.	G.
ALDUFRA	S	11.4	9.5	32.0	5.12	6.7	2	MJ	MJ	MJ	MJ	MJ	MJ
ALTAR 84	S	10.3	8.5	31.3	5.34	7.9	1	MJ	MJ	MJ	MJ	MJ	MJ
FRIGATE 'S'	S	12.3	9.0	32.3	5.01	6.4	4	MJ	MJ	MJ	MJ	MJ	MJ
MEXICALI 1	S	10.9	8.0	31.6	5.98	7.0	1	MJ	MJ	MJ	MJ	MJ	MJ
STIFFTAIL 4	S	11.4	7.5	31.4	5.83	7.1	1	MJ	MJ	MJ	MJ	MJ	MJ
WAHA 'S'	S	11.9	8.5	32.0	4.51	7.2	4	MJ	MJ	MJ	MJ	MJ	MJ
WESTBRED TURBO	S	11.2	8.5	30.4	5.21	6.3	3	MJ	MJ	MJ	MJ	MJ	MJ
WESTBRED 881	S	12.7	9.5	30.0	6.29	6.7	4	MJ	MJ	MJ	MJ	MJ	MJ
YAVAROS	S	10.6	8.0	30.5	5.31	7.4	1	MJ	MJ	MJ	MJ	MJ	MJ
CD 25126	S	11.3	9.0	30.2	5.96	6.9	1	MJ	MJ	MJ	MJ	MJ	MJ
FH 883-2	S	12.6	9.5	29.3	6.07	6.8	4	MJ	MJ	MJ	MJ	MJ	MJ
FH 883-15	S	12.8	9.5	30.0	6.26	5.9	4	MJ	MJ	MJ	MJ	MJ	MJ
FH 884-11	S	11.6	9.0	30.0	6.09	6.3	4	MJ	MJ	MJ	MJ	MJ	MJ
FH 884-32	S	11.5	9.5	30.8	5.51	6.2	1	MJ	MJ	MJ	MJ	MJ	MJ
FH 884-57	S	11.1	8.0	29.9	6.03	6.5	2	MJ	MJ	MJ	MJ	MJ	MJ
UC 640	S	11.3	9.0	32.2	4.97	6.5	3	MJ	MJ	MJ	MJ	MJ	MJ
UC 707	S	11.5	7.5	29.7	6.16	6.7	1	MJ	MJ	MJ	MJ	MJ	MJ
UC 708	S	12.3	8.0	31.1	5.16	6.0	2	MJ	MJ	MJ	MJ	MJ	MJ
UC 709	S	11.9	8.0	31.7	5.42	6.4	1	MJ	MJ	MJ	MJ	MJ	MJ
UC 710	S	12.5	9.5	30.2	7.04	6.4	3	MJ	MJ	MJ	MJ	MJ	MJ
UC 711	S	11.4	10.0	31.5	5.38	6.1	3	MJ	MJ	MJ	MJ	MJ	MJ
UC 712	S	12.0	9.5	31.2	6.22	6.3	4	MJ	MJ	MJ	MJ	MJ	MJ
UC 713	S	11.2	9.5	31.3	5.85	6.4	2	MJ	MJ	MJ	MJ	MJ	MJ
UC 738	S	12.1	8.0	33.7	5.10	6.3	1	MJ	MJ	MJ	MJ	MJ	MJ
UC 739	S	12.1	9.5	30.2	6.29	6.1	2	MJ	MJ	MJ	MJ	MJ	MJ
UC 740	S	12.0	9.5	30.1	6.74	6.9	1	MJ	MJ	MJ	MJ	MJ	MJ
UC 741	S	13.2	9.5	30.7	5.75	6.3	1	MJ	MJ	MJ	MJ	MJ	MJ
UC 742	S	11.6	9.0	31.1	5.57	6.1	4	MJ	MJ	MJ	MJ	MJ	MJ
UC 743	S	12.6	8.5	30.7	5.83	6.2	4	MJ	MJ	MJ	MJ	MJ	MJ

DEFICIENCIES TW KW SM WF TX SX DU SK SF VI FR
 AVG OF STANDARDS 63.0 51.1 1 12.0 77.0 59.3 90 60 11.1 8.8 5.55
 MINOR FAULTING VALUES 60.0 49.0 6 12.5 74.5 56.3 90 70 11.5 7.0 4.05
 MAJOR FAULTING VALUES 59.9 46.0 11 11.5 73.5 55.3 75 75 11.0 7.3 3.30

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1987 CROP

STATE=CALIFORNIA STATION=DELTA AREA NURSERY=ADVANCED

TABLE 18

VARIETY	TEST	1000		SIZING		WHT		HARDNESS		FALL		TOTL		SEM0		SEMO		DUST		MIXO	
		WT	%/BU	K.WT	LG	SM	ASH	PRO	%	NESS	SEC	NO	EXTR	%	SPK	ASH	%	COLOR	SCORE		
ALDURA	S	64.1	45.7	71	0	1.60	11.8	105	400	79.8	62.6	43	0.65	90							
ALTAR B ⁴	S	64.7	44.6	69	0	1.67	10.6	101	400	73.7	57.6	53	0.66	80							
FRIGATE 'S'	S	64.8	46.9	71	0	1.58	11.1	109	400	77.6	59.9	40	0.63	85							
MEXICALI	S	62.5	48.8	75	1	1.64	10.7	101	400	75.1	58.7	43	0.68	85							
STIFFTAIL 4	S	64.0	50.8	80	2	1.59	10.7	111	400	77.8	59.9	53	0.61	75							
WAHA 'S'	S	64.6	46.5	72	0	1.70	11.5	114	400	78.1	60.5	40	0.62	80							
WESTBRED TURBO	S	63.4	54.6	82	1	1.59	12.1	123	400	77.9	59.0	33	0.59	90							
WESTBRED 881	S	63.4	51.3	84	0	1.76	12.5	112	400	76.8	58.8	73	0.62	100							
YAVAROS	S	64.9	50.3	80	1	1.64	11.1	112	400	79.1	64.0	73	0.64	75							
CD 25126	S	65.6	42.9	72	0	1.63	11.2	121	400	78.9	59.0	37	0.65	95							
PH 883-2	S	64.3	44.6	69	3	1.74	11.9	113	400	78.1	60.6	47	0.65	100							
PH 883-15	S	63.1	53.8	90	1	1.80	12.9	120	400	78.2	59.3	73	0.75	85							
PH 884-11	S	63.5	45.5	67	1	1.70	11.6	123	400	77.8	60.0	47	0.70	90							
PH 884-32	S	63.3	40.3	42	1	1.86	12.1	110	400	76.3	58.8	27	0.71	95							
PH 884-57	S	62.7	54.3	81	3	1.62	9.7	108	400	71.6	55.6	60	0.64	85							
UC 640	S	63.5	52.4	83	1	1.64	11.1	100	400	77.2	60.9	40	0.62	90							
UC 707	S	63.8	38.6	53	1	1.72	11.5	128	400	78.1	58.5	40	0.63	75							
UC 708	S	64.1	42.6	63	1	1.77	11.7	115	400	75.9	55.6	30	0.61	80							
UC 709	S	64.5	41.5	60	2	1.68	11.7	114	400	76.5	60.7	43	0.68	80							
UC 710	S	64.4	41.7	49	2	1.72	11.7	108	400	76.7	59.0	60	0.64	95							
UC 711	S	63.6	42.2	64	0	1.83	11.1	126	400	76.8	60.1	73	0.72	105							
UC 712	S	63.9	47.1	92	0	1.72	10.6	115	400	76.2	59.2	57	0.67	90							
UC 713	S	64.7	45.9	73	1	1.70	11.0	124	400	76.5	61.9	43	0.67	95							
UC 738	S	64.8	43.1	55	1	1.70	11.4	126	400	77.7	60.7	77	0.66	80							
UC 739	S	64.7	40.9	54	2	1.81	11.7	115	400	76.5	58.5	57	0.64	95							
UC 740	S	64.1	41.3	57	1	1.77	12.5	127	400	77.4	60.2	40	0.67	100							
UC 741	S	64.0	42.7	63	2	1.86	12.1	120	400	75.8	60.1	90	0.69	100							
UC 742	S	64.3	45.9	76	2	1.68	11.3	107	400	76.7	59.9	67	0.67	90							
UC 743	S	64.8	46.3	82	0	1.62	10.7	118	400	75.6	59.4	57	0.67	90							

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 18 (Cont.) STATE=CALIFORNIA STATION=DELTA AREA NURSERY=ADVANCED

VARIETY	STD	PRO	COL	WT	VIS	COOK	FIRMNESS	FES	***	SCORE	DEFICIENCIES						
											TW	KW	SM	WF	TX	SX	DU
%	g.										MJ	MJ	MJ	MJ	MJ	MJ	MJ
ALDURA	S	10.3	9.0	31.8	4.51	7.0	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
ALTAR 84	S	10.0	8.0	32.5	4.64	7.7	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
FRIGATE 'S'	S	10.5	8.5	32.1	4.19	7.3	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
MEXICALI	S	10.2	8.0	32.1	4.51	6.9	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
STIFFTAIL 4		9.4	7.5	31.5	5.08	7.2	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
WAHA 'S'		10.6	8.5	30.9	4.26	7.1	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
WESTBRED TURBO		10.7	9.0	30.8	4.67	7.0	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
WESTBRED 881		11.4	9.5	30.7	5.94	6.5	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
YAVARES		9.9	7.5	31.1	4.47	7.0	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
CD 25126		9.8	9.0	30.6	4.86	7.2	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
PH 883-2		10.9	9.5	30.3	4.86	7.0	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
PH 883-15		11.4	9.0	30.5	5.23	6.6	2			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
PH 884-11		10.4	9.0	29.9	5.18	6.7	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
PH 884-32		10.5	9.5	31.1	4.67	7.6	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
PH 884-57		9.3	8.5	31.7	4.75	7.7	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 640		9.8	9.0	32.8	3.89	7.3	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 707		10.2	7.5	30.8	4.97	7.5	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 708		10.6	8.5	32.5	3.69	7.6	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 709		10.5	8.0	31.3	4.32	7.7	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 710		10.2	9.5	31.0	5.29	6.5	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 711		10.3	10.0	30.9	5.14	7.2	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 712		9.7	9.5	31.9	4.54	8.2	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 713		10.0	9.0	31.0	4.90	7.4	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 738		10.0	8.5	32.2	4.60	7.0	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 739		10.7	9.5	30.1	5.05	6.8	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 740		10.9	9.5	30.3	5.42	6.6	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 741		10.6	10.0	31.7	4.43	7.2	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 742		10.1	9.5	30.7	5.14	6.9	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ
UC 743		9.9	9.5	31.7	5.05	6.6	1			MJ	MJ	MJ	MJ	MJ	MJ	MJ	MJ

DEFICIENCIES

TW KW SM WF TX SX DU SK SP VI FR

M=NO DEFICIENCY, 2=LETTUCE TYPE, 3=SOME DEFICIENCY, 4=GOOD FROM FERT.

AVG OF STANDARDS

63.3 47.2 1 11.2 77.4 6.6 88 43 10.2 8.5 4.51

MIN FAULTING VALUES

61.1 45.1 6 12.5 74.9 57.6 78 53 11.5 7.5 3.01

MAX FAULTING VALUES

60.2 42.1 11 11.5 73.9 56.6 73 53 11.0 7.0 2.26

* EVALUATION 1 NO DEFICIENCY, 2=LETTUCE TYPE, 3=SOME DEFICIENCY, 4=GOOD FROM FERT.

QUALITY DATA OF DUREUM SAMPLES 1987 CROP

TABLE 1.9 STATE=CALIFORNIA STATION=IMPERIAL VALLEY MUSEUM=ADVANCED

VARIETY	TEST	1000		SIZING		WHT		HARD-		FALL		TOTAL		SEMO		SEM		DUST		MIXO	
		WT	#/BU	K.WT	LG	SM	ASH	FEO	NESS	NO	SEC	%	EXTR	%	SFK	ASH	%	COLOR	SCORE		
ALDURA	S	64.5	45.7	56	1	1.72	11.4	11.2	109	400	80.0	62.5	33	0.64	85	1	2	4	3	0.60	85
ALTAR	S	66.1	44.6	72	1	1.61	11.2	11.6	107	400	79.0	63.1	33	0.60	85	1	2	4	3	0.64	75
MEXICALI	T5	S	63.6	52.6	85	1	1.68	11.6	11.4	400	77.4	62.4	43	0.59	85	1	2	4	3	0.59	85
WESTBRED TURBO	S	64.8	53.8	89	2	1.63	11.4	11.3	400	77.3	60.2	23	0.59	85	1	2	4	3	0.59	85	
YAVARDS	S	66.0	52.1	89	0	1.68	11.2	11.4	400	78.0	62.0	47	0.57	75	0						
1	S	65.5	52.4	87	0	1.68	13.3	11.9	400	76.6	60.8	30	0.60	60	2	2	2	2	0		
2	S	64.3	44.4	51	0	1.71	12.0	12.5	400	79.9	62.6	50	0.59	85	0						
3	S	65.6	46.3	80	0	1.64	12.4	12.5	400	77.9	60.4	57	0.62	85	3						
4	S	64.8	45.0	56	0	1.71	12.7	11.8	400	82.0	59.3	63	0.62	85	1						
5	S	64.1	46.7	79	0	1.82	14.0	11.3	400	74.4	56.4	99	0.67	95	1						
6	S	65.8	52.1	89	0	1.67	12.1	11.7	400	77.4	60.3	57	0.66	85	2						
7	S	65.3	43.9	54	0	1.67	12.0	11.6	400	78.4	61.0	50	0.61	70	0						
8	S	63.4	48.1	74	0	1.72	13.8	12.2	400	77.2	59.8	27	0.65	65	1						
9	S	65.6	46.5	79	0	1.77	13.4	11.8	400	75.3	57.1	43	0.62	95	1						
10	S	65.4	46.5	77	0	1.76	13.6	12.3	400	76.6	57.6	63	0.67	75	0						
11	S	64.3	52.6	89	0	1.81	13.0	11.3	400	77.6	61.1	47	0.68	75	1						
12	S	64.5	43.9	59	0	1.76	13.6	10.8	400	76.9	58.8	53	0.63	70	1						
13	S	64.2	46.9	60	0	1.69	11.9	11.1	400	77.1	60.7	57	0.64	80	1	2	2	2	1		
14	S	64.0	48.3	76	0	1.61	11.7	11.5	400	77.5	60.7	33	0.60	65	1						
15	S	64.4	47.4	71	0	1.71	12.5	12.5	400	78.7	61.2	27	0.61	70	1						
16	S	63.3	48.5	76	0	1.68	12.9	12.1	400	79.0	62.6	33	0.61	60	1	2	2	2	1		
17	S	64.3	46.9	77	0	1.64	12.1	11.4	400	77.7	60.0	47	0.60	85	1						
18	S	64.5	37.2	20	0	1.68	12.9	11.3	400	76.0	58.7	49	0.63	80	2	2	2	2	1		
19	S	64.3	46.5	70	0	1.81	13.6	11.3	400	76.7	60.2	47	0.72	80	2						
20	S	65.9	49.3	87	0	1.68	13.2	11.4	400	76.7	60.3	33	0.66	80	1	2	2	2	1		
21	S	63.3	48.5	76	0	1.68	12.9	12.1	400	79.0	62.6	33	0.61	60	1						
22	S	64.3	47.8	80	0	1.68	12.4	12.1	400	78.3	60.0	30	0.65	90	2						
23	S	64.3	46.9	77	0	1.64	12.1	11.4	400	77.7	60.0	47	0.60	85	1						
24	S	64.5	47.4	71	0	1.71	12.5	12.5	400	78.0	61.2	27	0.61	70	1						
25	S	64.3	46.5	70	0	1.81	13.0	11.1	400	76.7	60.2	47	0.72	80	2						
26	S	65.9	49.3	87	0	1.68	13.2	11.4	400	76.7	60.3	33	0.66	80	1						
27	S	64.7	47.8	80	0	1.81	13.0	10.3	400	75.9	56.9	73	0.69	95	0						
28	S	65.1	44.6	68	0	1.70	12.9	11.4	400	75.8	57.3	50	0.60	95	0						
29	S	64.4	43.1	60	0	1.79	13.0	11.1	400	76.0	58.7	49	0.63	80	1						
30	S	64.2	46.5	62	0	1.68	11.7	10.5	400	77.4	60.9	37	0.61	80	2						
31	S	64.0	43.7	63	0	1.64	11.8	11.5	400	75.9	56.9	73	0.69	95	0						
32	S	65.9	48.8	80	0	1.65	11.8	10.3	400	76.6	60.1	63	0.63	75	3						
33	S	64.6	48.8	78	0	1.70	11.6	11.1	400	76.5	60.0	47	0.62	80	1						
34	S	64.5	48.5	76	1	1.65	12.0	11.2	400	78.5	61.2	37	0.61	75	2						
35	S	65.5	45.5	66	0	1.64	11.8	11.5	400	76.0	58.7	53	0.62	75	3						
36	S	64.7	42.2	42	0	1.77	12.3	11.1	400	75.5	57.9	37	0.62	70	2						
37	S	64.4	40.7	35	1	1.63	12.7	12.0	400	77.0	60.3	47	0.69	75	1						
38	S	64.7	42.6	50	0	1.71	12.4	11.3	400	76.7	60.7	67	0.60	75	2						
39	S	62.9	42.7	53	1	1.56	12.0	9.4	400	76.5	60.2	39	0.62	65	1						
40	S	64.6	51.5	80	0	1.68	11.5	11.1	400	76.9	60.2	53	0.61	75	3						
41	S	65.8	46.3	77	1	1.76	12.3	11.2	400	76.1	57.4	37	0.66	75	1						
42	S	65.6	45.5	74	0	1.66	12.0	12.1	400	73.6	55.6	69	0.65	70	2						
43	S	64.9	47.1	75	0	1.82	13.4	11.4	400	76.4	57.8	80	0.70	65	1						
44	S	65.0	37.5	9	2	1.65	11.8	11.6	400	78.4	53.5	23	0.70	70	0						

TABLE 19 (Cont.)

		STATE=CALIFORNIA			STATION=IMPERIAL VALLEY			NURSERY=ADVANCED		
		SEMIDURUM	VISCOSE	COKING WT.	FIRMNESS	RESIST.	SCOKE ***	DEFICIENCIES	TW KW SM WF TX SX DU SK SF VI FR	
VARIETY-----		STD	PRO	COL	G.	G.	G.			
Z	G.									
1	ALDURA	S	10.1	9.5	32.8	5.18	6.8	1	MJ	MJ
2	ALTAR	S	10.0	9.5	32.3	5.42	7.5	1	MJ	MJ
3	MEXICALI 75	S	10.4	8.0	29.9	5.36	7.3	1	MJ	MJ
4	WESTBRED TURBO	S	10.0	9.5	31.4	5.01	7.6	1	MJ	MJ
5	YAVAROS	S	9.8	8.0	31.6	5.14	7.9	1	MJ	MJ
6		S	11.4	9.5	31.1	5.34	7.8	1	MJ	MJ
7		S	10.6	9.0	33.1	4.95	7.2	1	MJ	MJ
8		S	10.7	9.0	30.8	5.53	6.9	1	MJ	MJ
9		S	11.4	9.5	31.6	6.03	6.6	1	MJ	MJ
10		S	12.3	10.0	31.7	5.83	7.2	1	MJ	MJ
11		S	10.7	9.0	30.6	6.05	7.0	1	MJ	MJ
12		S	10.5	7.5	32.7	4.86	7.3	1	MJ	MJ
13		S	11.9	7.5	31.1	5.83	6.2	1	MJ	MJ
14		S	12.0	9.5	31.2	5.96	6.4	1	MJ	MJ
15		S	11.7	8.5	32.0	5.75	6.6	1	MJ	MJ
16		S	11.4	9.0	31.5	6.33	7.8	3	MJ	MJ
17		S	11.9	8.0	32.1	5.31	7.2	2	MJ	MJ
18		S	10.6	9.0	29.9	4.99	6.3	1	MJ	MJ
19		S	10.5	7.5	31.2	5.42	7.1	1	MJ	MJ
20		S	11.1	8.0	30.8	5.18	6.8	2	MJ	MJ
21		S	11.3	7.5	32.3	5.18	6.8	1	MJ	MJ
22		S	10.4	9.0	31.5	5.31	7.3	1	MJ	MJ
23		S	11.3	9.0	30.6	5.96	7.0	1	MJ	MJ
24		S	12.4	9.0	30.6	5.79	6.1	4	MJ	MJ
25		S	11.3	9.0	30.9	5.96	6.4	5	MJ	MJ
26		S	10.9	9.5	31.3	5.85	6.5	1	MJ	MJ
27		S	11.0	10.0	31.6	5.49	6.2	1	MJ	MJ
28		S	11.3	10.0	30.5	6.09	6.4	1	MJ	MJ
29		S	10.6	9.5	31.0	4.95	7.1	1	MJ	MJ
30		S	11.0	9.5	32.4	4.45	6.8	1	MJ	MJ
31		S	10.1	8.5	30.6	5.21	6.7	1	MJ	MJ
32		S	10.1	9.5	31.4	4.67	6.7	1	MJ	MJ
33		S	10.3	7.5	29.2	5.44	7.4	1	MJ	MJ
34		S	10.4	8.0	30.1	5.42	6.8	1	MJ	MJ
35		S	10.6	7.5	30.4	5.05	6.9	1	MJ	MJ
36		S	11.3	8.5	31.5	5.01	6.7	2	MJ	MJ
37		S	11.2	8.5	31.0	5.29	6.1	1	MJ	MJ
38		S	10.8	9.0	30.7	5.29	6.0	1	MJ	MJ
39		S	10.2	8.5	32.1	5.36	6.6	1	MJ	MJ
40		S	10.0	9.0	31.0	5.79	7.2	1	MJ	MJ
41		S	11.0	8.0	31.2	6.05	6.4	1	MJ	MJ
42		S	11.5	8.0	30.2	5.20	6.4	1	MJ	MJ
43		S	10.1	7.5	31.2	5.03	6.3	1	MJ	MJ
44		S								
	DIFFLICIENCIES	TW	KW	SM	WF	TX	SX	DU	SK	SP
	Avg. of STANDARDS	64.7	50.1	1	11.4	78.5	62.3	78	41	10.1
	MINOR FAULTING VALUES	62.5	48.0	6	12.5	76.0	59.3	68	51	11.5
	MAJOR FAULTING VALUES	61.6	45.0	11	11.5	75.0	50.3	63	56	11.0

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE
 AVG OF STANDARDS 64.7
 MINOR FAULTING VALUES 62.5
 MAJOR FAULTING VALUES 61.6
 TW KW SM WF TX SX DU SK SP VI FR
 5.23
 3.73
 2.96

QUALITY DATA OF DUFUM SAMPLES 1987 CROP

STATE=CALIFORNIA STATION=IMPERIAL VALLEY NURSERY=ADVANCED

TABLE 20

VARIETY	TEST	1000	SIZING	WHT	HARD-FALL	TOTL	SEMO	SEMO	DUST	MIXO	SCORE				
		#/BU	%	%	%	%	%	%	%	%					
ALDURA	S	61.1	38.5	24	0	1.74	14.5	125	400	77.9	59.4	17	0.67	100	1
ALTAR	S	61.8	35.1	22	1	1.74	13.9	112	400	78.5	62.3	23	0.72	80	3
MEXICALI	S	60.2	41.8	61	2	1.68	13.6	115	400	77.5	61.7	33	0.68	80	4
TURBO	S	61.2	44.6	70	0	1.60	13.3	123	400	77.0	59.1	10	0.65	85	5
WESTBRED 881	S	60.6	41.8	66	2	1.77	14.9	117	400	76.6	59.5	20	0.69	90	7
YAVAFOS 79	S	62.0	40.7	47	2	1.71	13.4	119	400	77.9	60.0	40	0.65	75	2
FH 883-2	S	62.5	42.2	65	1	1.72	14.8	118	400	76.8	58.8	20	0.67	95	6
FH 883-15	S	59.3	47.7	85	0	1.91	16.4	123	400	77.0	59.0	23	0.76	80	8
FH 884-32	S	61.3	37.2	27	1	1.73	14.3	106	400	77.1	59.6	27	0.71	90	7
94D 156	S	62.3	38.3	42	1	1.80	13.7	114	400	78.0	58.9	33	0.71	90	3
84D 228	S	58.8	38.8	25	1	1.91	14.2	112	400	78.4	60.8	50	0.81	105	5
84D 270	S	61.3	38.2	24	1	1.80	14.2	109	400	78.3	59.6	37	0.72	90	3
85D 9606	S	62.6	42.7	74	0	1.68	14.5	117	400	75.5	57.8	37	0.63	95	4
85D 9611	S	62.1	40.7	65	0	1.77	14.7	125	400	76.7	58.7	23	0.68	85	5
85D 9612	S	62.1	41.5	63	0	1.80	14.0	114	400	77.1	59.5	23	0.73	90	4
85D 9614	S	62.6	42.9	57	0	1.77	14.4	111	400	77.6	61.1	17	0.72	95	5
85D 9615	S	62.6	41.0	61	0	1.79	14.6	114	400	76.4	57.8	17	0.72	95	4
85D 9643	S	60.1	36.0	50	0	1.86	15.0	121	400	76.9	57.2	13	0.70	105	7
85D 9687	S	62.4	40.7	59	1	1.74	13.6	112	400	76.7	60.4	27	0.70	100	6
85D 9698	S	61.6	37.5	42	0	1.71	14.3	113	400	77.2	58.7	13	0.68	109	6
85D 9699	S	60.3	43.5	65	0	1.75	14.9	113	400	71.6	57.4	10	0.69	100	7

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 20 (Cont.) STATE=CALIFORNIA STATION=IMPERIAL VALLEY NURSERY=ADVANCED

VARIETY	SEMOLINA STD %	VIS COL %	COOK WT G.	FIRM- NESS RES G.	SCORE *** G.	DEFICIENCIES							
						TW	KW	SM	WP	TX	SX	DU	SK
ALDURA	S	13.3	9.5	31.7	5.53	6.0	4						
ALTAR	S	13.3	9.0	31.3	7.47	6.3	1						
MEXICALI 75	S	12.9	9.0	31.6	6.85	6.1	2						
TURBO	S	12.3	9.5	31.2	7.41	6.5	4						
WESTBRED 881	S	14.1	9.5	29.6	8.29	6.3	4						
YAVAROS 79	S	12.5	8.5	31.6	6.89	6.1	1						
PH 883-2	S	13.7	10.0	30.8	7.62	5.9	4						
PH 883-15	S	15.6	9.5	29.3	9.03	5.9	4						
PH 684-32	S	13.4	9.5	29.5	7.99	5.9	4						
84D 156	S	13.0	9.5	30.3	5.94	6.6	4						
84D 228	S	13.5	10.0	29.7	6.91	6.1	3						
84D 270	S	13.5	9.5	29.8	6.54	6.1	4						
85D 9606	S	13.8	9.5	30.7	7.47	5.6	4						
85D 9611	S	13.6	9.5	31.0	7.08	6.0	4						
85D 9612	S	13.3	9.5	31.3	6.93	6.1	4						
85D 9614	S	13.5	10.0	30.4	7.00	5.9	4						
85D 9615	S	13.9	10.0	31.0	6.85	5.6	4						
85D 9643	S	14.3	10.0	31.0	7.47	5.8	3						
85D 9687	S	12.6	10.0	31.3	6.59	6.3	4						
85D 9698	S	13.4	10.0	30.6	6.63	6.1	4						
85D 9699	S	13.9	10.0	31.0	7.24	6.0	2						

DEFICIENCIES TW KW SM WP TX SX DU SK SP V1 FR
 AVG OF STANDARDS 60.6 40.7 1 14.3 77.3 60.2 20 23 13.4 9.3 6.89
 MINOR FAULTING VALUES 30.4 38.6 6 12.5 71.8 57.2 30 33 11.5 8.3 5.39
 MAJOR FAULTING VALUES 57.5 35.6 11 11.5 73.8 56.2 75 38 11.0 7.8 4.64

*EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DUREUM SAMPLES 1987 CROP

STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED

TABLE 21

VARIETY-----	TEST	1000	SIZING	WHT	HARD-FALL	TOTL	SEMO	SEMO	DUST	MIXO	1		
#/BU	g.	%	%	%	%	%	SEC	%	%	%	%		
ALDURA	S	62.5	42.0	53	2	1.47	12.3	106	400	76.4	59.3	50	0.56
ALTAR B-4	S	64.4	40.8	58	3	1.44	10.8	106	300	74.3	58.2	20	0.59
MEXICALI 75	S	61.9	45.2	64	3	1.49	96	400	73.7	57.9	37	0.58	75
WESTERRED TURBO	S	64.1	48.5	77	3	1.38	11.8	109	400	74.9	58.7	27	0.53
YAVAROS	S	64.9	49.3	75	2	1.39	11.3	107	400	74.7	59.8	40	0.54
720/2	S	62.5	42.9	51	2	1.47	11.9	106	400	77.0	60.4	30	0.57
720/3	S	64.5	46.1	75	1	1.47	12.4	100	400	76.2	59.2	27	0.60
720/4	S	65.3	45.0	65	2	1.53	12.2	107	400	74.1	58.0	33	0.58
720/6	S	64.7	45.2	74	2	1.47	12.4	111	400	75.3	59.0	53	0.64
720/9	S	65.5	43.9	69	2	1.60	12.4	105	400	74.7	56.9	37	0.58
720/10	S	65.8	44.8	76	2	1.61	12.4	109	400	72.9	62.3	73	0.57
720/11	S	63.6	50.0	82	2	1.62	12.4	93	400	75.2	58.7	57	0.64
720/23	S	62.9	40.2	65	3	1.47	11.2	102	400	74.9	57.5	43	0.58
720/24	S	64.5	35.2	19	3	1.56	12.2	99	400	73.2	55.5	37	0.60
720/25	S	64.5	45.5	72	1	1.55	12.3	105	400	75.9	57.5	13	0.62
720/26	S	65.5	47.8	79	1	1.60	12.3	105	400	72.6	55.7	63	0.60
720/27	S	64.2	49.0	73	2	1.58	11.7	105	400	75.5	58.8	43	0.65
720/28	S	64.8	42.2	53	2	1.56	12.1	105	400	74.0	55.9	40	0.58
720/29	S	64.8	44.2	59	3	1.58	11.8	97	400	73.5	56.9	77	0.60
720/30	S	63.5	43.1	58	2	1.48	11.3	104	400	75.6	58.3	47	0.54
720/32	S	65.7	48.3	78	1	1.50	11.9	106	400	74.8	56.1	40	0.61
720/33	S	63.6	45.2	62	2	1.51	12.3	102	400	75.4	57.5	33	0.60
720/34	S	63.4	44.2	65	3	1.50	10.9	101	400	74.1	56.1	17	0.57
720/36	S	64.6	40.8	53	3	1.55	11.4	99	400	72.8	54.1	23	0.60
720/37	S	63.6	36.8	35	3	1.51	12.0	102	400	75.5	57.5	23	0.62
720/41	S	64.1	43.5	64	2	1.64	11.7	102	400	75.7	55.2	40	0.63
720/43	S	64.4	49.0	67	2	1.63	12.4	105	400	75.8	56.9	23	0.62
720/44	S	64.0	36.0	14	3	1.48	11.3	98	400	75.0	54.3	33	0.57

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 21 (Cont.) STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED

----VARIETY----	STD	SEM	VIS	COOK	FIRM- NESS	REG	***	TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR	DEFICIENCIES		
ALDURA	S	11.2	9.0	32.1	5.42	6.2	2													MI	MI
ALTAR 84	S	9.8	8.5	33.4	4.97	7.0	1													MJ	MJ
MEXICALI 75	S	10.3	9.0	31.8	4.92	6.2	1													MJ	MJ
WESTBRED TURBO		10.5	9.5	31.2	5.36	6.4	1													MJ	MJ
YAVAROS		10.4	8.5	32.2	5.38	6.7	1													MJ	MJ
720/2		10.7	9.5	32.4	5.44	6.3	1													MJ	MJ
720/3		10.9	9.0	32.2	5.62	6.3	1													MJ	MJ
720/4		10.9	9.5	32.5	6.09	6.4	1													MJ	MJ
720/6		11.3	9.5	31.2	5.88	6.5	2													MJ	MJ
720/7		10.9	9.5	31.9	6.24	6.0	1													MJ	MJ
720/10		11.1	8.5	30.9	5.34	6.6	1													MJ	MJ
720/11		10.7	9.0	32.0	5.57	6.5	1													MJ	MJ
720/23		10.3	9.5	32.2	5.96	6.4	1													MJ	MJ
720/24		10.6	9.0	31.4	6.05	6.9	1													MJ	MJ
720/25		10.9	9.0	32.5	5.34	6.7	1													MJ	MJ
720/26		10.8	9.5	31.0	6.09	6.5	1													MJ	MJ
720/27		10.4	9.5	32.9	5.40	6.9	1													MJ	MJ
720/28		10.8	10.0	32.2	5.09	6.4	1													MJ	MJ
720/29		10.5	10.0	31.2	5.03	6.4	1													MJ	MJ
720/30		10.1	9.0	31.4	4.21	6.6	1													MJ	MJ
720/32		10.4	8.0	33.4	4.73	7.0	1													MJ	MJ
720/33		10.9	9.5	32.7	4.82	5.9	1													MJ	MJ
720/34		10.3	7.0	31.6	5.81	6.0	1													MJ	MJ
720/36		10.0	7.5	32.4	5.08	7.0	1													MJ	MJ
720/37		10.7	8.0	32.3	5.38	6.3	1													MJ	MJ
720/41		10.1	8.5	31.5	5.98	6.6	1													MJ	MJ
720/43		11.3	8.0	31.0	5.70	6.1	1													MJ	MJ
720/44		9.9	7.5	31.1	4.62	7.0	1													MJ	MJ

DEFICIENCIES
 AVG. OF STANDARDS
 MINOR FAULTING VALUES
 MAJOR FAULTING VALUES

* EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 22 STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED

	TEST	1000	SIZING	WHT	WHT	HARD-FALL	FALL	TOTL	SEMO	SEMO	DUST	MIXO
			K.WT	LG	SM	PRO	NESS	NO SEC	EXTR	SPK %	ASH %	COLOR SCORE
		#/BU	G.	%	%	%						
ALDURA	S	63.2	43.3	57	2	1.49	12.6	107	400	74.8	57.5	37
ALTAR	S	65.0	41.7	57	3	1.46	11.3	106	400	75.0	59.1	40
MEXICALI	75	62.8	50.5	76	2	1.49	12.0	103	400	73.9	57.9	20
YAVAROS	S	65.1	48.3	75	1	1.43	11.7	102	400	74.9	56.5	37
721/9	64.4	51.0	82	2	1.49	12.7	113	400	75.9	58.2	33	0.55
721/10	64.1	49.3	78	1	1.46	12.9	103	400	74.3	57.7	47	0.54
721/11	64.4	41.3	64	2	1.61	12.7	111	400	76.9	58.7	27	0.62
721/12	65.0	46.1	70	2	1.49	12.0	105	400	68.9	54.6	20	0.57
721/13	64.5	43.9	72	0	1.61	13.3	104	400	73.7	54.0	37	0.57
721/14	64.9	44.2	67	1	1.50	12.5	106	400	75.9	59.0	27	0.59
721/15	63.7	46.9	65	1	1.56	13.0	104	400	74.8	57.9	33	0.60
721/16	64.2	40.2	50	2	1.60	13.5	110	400	73.2	55.2	57	0.63
721/17	65.1	38.8	45	2	1.58	13.0	103	400	73.0	55.0	13	0.63
721/18	64.9	41.2	47	3	1.48	13.4	108	400	73.3	54.2	53	0.63
721/19	65.5	44.1	72	1	1.63	14.1	112	400	71.6	54.0	53	0.62
721/20	64.4	47.1	72	2	1.55	12.1	97	400	73.3	56.4	37	0.62
721/21	63.7	45.0	60	2	1.54	13.2	105	400	75.3	58.2	40	0.62
721/22	64.1	40.7	55	2	1.65	12.4	106	400	74.8	58.0	17	0.64
721/23	65.0	50.5	82	1	1.60	13.8	104	400	73.5	58.2	33	0.62
721/24	65.7	43.7	68	1	1.64	13.3	107	400	72.4	56.1	30	0.63
721/25	65.0	43.5	72	2	1.64	13.8	104	400	72.8	55.8	47	0.60
721/26	64.8	54.3	86	1	1.56	12.8	109	400	74.2	59.6	43	0.65
721/27	64.7	52.9	83	2	1.66	13.5	106	400	73.9	57.1	47	0.66
721/28	66.1	45.0	71	1	1.59	12.5	112	400	74.0	56.9	30	0.62
721/29	65.0	46.7	77	2	1.62	12.7	107	400	73.6	58.0	23	0.60
721/30	67.4	75	2	1.65	12.7	101	400	74.1	56.7	47	0.60	

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 22 (Cont.) STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED

VARIETY	STD	SEMO	VIS	COOK	FIRMNESS	RES	***	TW	KW	SM	WF	TX	SX	DU	SK	SF	VI	FR	DEFICIENCIES	
																			DEFICIENCIES	
																			MJ	MJ
																		MJ	MJ	
ALDURA	S	10.8	8.5	31.8	5.42	6.1	2	MJ												
ALTAR	S	10.6	8.0	33.6	5.34	6.7	1	MJ												
MEXICALI 75	S	10.7	8.0	32.7	5.08	6.4	1	MJ												
YAVAROS	S	10.2	8.0	31.2	4.82	6.4	1	MJ												
721/9		11.4	6.0	32.0	5.94	7.0	1	MJ												
721/10		11.3	7.0	32.6	5.92	6.4	1	MJ												
721/11		11.2	7.5	31.9	5.94	7.0	2	MJ												
721/12		10.3	7.5	30.9	6.16	6.8	1	MJ												
721/13		11.4	8.0	31.4	6.42	6.6	2	MJ												
721/14		10.6	9.0	32.0	5.25	6.8	1	MJ												
721/15		11.2	8.0	32.8	6.16	6.0	3	MJ												
721/16		11.7	8.5	32.4	7.15	5.8	2	MJ												
721/17		11.7	8.5	31.8	6.42	5.7	3	MJ												
721/19		11.6	8.5	31.7	7.08	5.5	1	MJ												
721/20		12.1	8.5	31.2	5.79	5.7	1	MJ												
721/21		10.3	9.5	30.7	5.90	6.6	1	MJ												
721/22		11.4	8.5	32.3	5.10	6.0	3	MJ												
721/29		11.0	10.0	31.4	5.31	6.8	1	MJ												
721/31		11.8	9.0	31.0	6.20	6.4	4	MJ												
721/32		11.3	9.5	30.1	5.96	7.0	3	MJ												
721/35		12.1	7.5	31.2	5.88	6.2	3	MJ												
721/36		11.6	8.5	31.2	6.24	6.4	4	MJ												
721/37		11.7	8.5	31.3	5.62	6.5	3	MJ												
721/39		10.8	7.5	32.7	5.53	6.5	1	MJ												
721/41		11.4	8.5	30.8	5.81	6.2	3	MJ												
721/44		11.8	9.5	32.1	5.92	6.0	3	MJ												

DEFICIENCIES
AVG OF STANDARDS
MINOR FAULTING VALUES
MAJOR FAULTING VALUES

TW KW SM WF TX SX DU SK SF VI FR
63.0 46.9 2 12.3 74.3 57.7 75 29 10.7 8.3 5.25
60.8 44.8 7 12.5 71.0 54.7 65 39 11.5 7.3 3.75
59.9 41.8 12 11.5 70.8 53.7 60 44 11.0 6.8 3.00

* EVALUATION 1-NO PROMISE, 2-LITTLE PROMISE, 3-SOME PROMISE, 4-GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 23

STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED

	TEST	1000 WT #/BU	SIZING WT G.	WHT %	WHT %	WHT %	HARD- FALL NESS SEC	FRO NESS SEC	TOTAL NO SEC	SEMO EXTR %	SEMO EXTR %	SEMO SFIC	ASH %	COLOR SCORE	SEMO DUST	MIXO
ALDURA	63.5	45.0	64	2	1.50	12.6	109	400	76.3	59.8	27	0.57	85	1		
ALTAR	65.6	43.9	66	2	1.44	11.1	95	400	73.8	58.4	20	0.53	70	2		
CHEN	64.7	43.1	64	2	1.61	13.2	104	400	72.1	55.4	43	0.55	80	3		
MEXICALI 75	62.8	49.0	78	3	1.51	11.9	97	400	73.8	58.7	53	0.56	70	3		
YAVAROS	65.1	47.8	75	2	1.43	11.6	107	400	74.5	58.0	30	0.52	70	1		
722/4	65.4	41.7	67	2	1.67	12.2	106	400	73.8	56.5	43	0.61	75	2		
722/5	64.7	43.7	71	1	1.89	14.9	107	400	72.0	54.9	37	0.69	90	1		
722/6	65.3	46.7	76	1	1.72	13.6	108	400	72.8	56.1	43	0.58	70	2		
722/8	64.6	43.5	71	2	1.64	12.9	108	400	72.9	54.9	57	0.56	70	0		
722/9	64.7	43.7	67	1	1.64	13.3	110	400	73.4	55.0	57	0.59	70	1		
722/16	64.3	41.7	54	1	1.54	12.8	106	400	73.8	56.7	33	0.56	85	1		
722/21	65.3	45.7	76	1	1.54	12.7	105	400	73.8	57.9	53	0.58	70	3		
722/22	65.1	45.8	75	1	1.51	12.6	104	400	73.9	56.7	40	0.59	70	3		
722/26	65.3	51.3	85	1	1.51	13.0	110	400	72.8	56.5	17	0.54	75	3		
722/27	64.9	39.5	62	2	1.60	12.7	107	400	73.6	56.8	33	0.59	75	2		
722/28	64.8	44.2	71	1	1.63	12.9	102	400	72.3	55.6	53	0.56	65	2		
722/32	64.0	42.0	64	3	1.69	13.0	105	400	71.7	53.2	17	0.56	80	4		
722/42	64.6	43.5	73	1	1.56	13.0	110	400	74.8	58.5	30	0.59	75	3		
722/43	63.4	41.0	60	3	1.60	12.1	102	400	74.7	58.0	33	0.61	80	3		
722/44	63.4	41.5	58	3	1.63	12.1	105	378	74.3	56.7	40	0.50	75	2		

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 23 (Cont.) STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED

VARIETY	STD	FRE	%	SEM	VIS	COOK	ITEM-	SCORE	DEFICIENCIES													
									WT	COL	NESS	RES	***	TW	KW	SM	WF	TX	SX	DU	SK	SF
				G.			G.	G.														
ALDURA	S	10.7	7.5	31.6	5.92	6.2		3						MJ	MJ							
ALTAR				11.9	8.5	32.3	5.79	6.6	1					MJ	MJ							
CHEN				11.0	8.0	30.7	5.62	6.7	3					MJ	MJ							
MEXICALI 75				10.5	7.5	31.5	5.36	7.0	1					MJ	MJ							
YAVAROS				10.5	7.5	32.3	4.58	7.8	1					MJ	MJ							
722/4				10.9	9.0	30.4	5.03	7.3	1					MJ	MJ							
722/5				13.4	9.5	31.9	5.46	6.3	3					MJ	MJ							
722/6				12.3	8.0	30.3	5.83	6.6	3					MJ	MJ							
722/8				11.9	8.0	31.9	5.12	6.4	2					MJ	MJ							
722/9				11.6	8.0	33.0	5.10	6.7	2					MJ	MJ							
722/16				11.9	9.5	32.5	5.64	6.0	4					MJ	MJ							
722/21				11.4	8.0	31.2	5.72	6.9	2					MJ	MJ							
722/22				11.0	8.0	31.2	5.64	6.6	2					MJ	MJ							
722/26				11.6	8.5	31.8	6.26	6.2	4					MJ	MJ							
722/27				11.4	8.5	32.9	5.57	6.5	3					MJ	MJ							
722/28				11.8	8.0	32.6	6.52	5.9	1					MJ	MJ							
722/32				11.8	9.0	31.5	6.52	6.5	1					MJ	MJ							
722/42				11.3	8.5	32.2	6.07	6.4	3					MJ	MJ							
722/43	S	11.1	9.0	32.3	5.96	7.0	2							MJ	MJ							
722/44		10.8	9.0	32.2	6.24	6.7	1							MJ	MJ							

DEFICIENCIES TW KW SM WF TX SX DU SK SF VI FR

AVG. OF STANDARDS 64.5 42.4 3 11.6 74.2 58.2 75 27 10.9 8.3 5.87

MINOR FAULTING VALUES 62.3 40.3 0 12.5 71.7 55.2 65 37 11.5 7.3 4.37

MAJOR FAULTING VALUES 61.4 37.3 13 11.5 70.7 54.2 60 42 11.0 6.8 3.62

*EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES

1987 CROP

STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED

TABLE 24

VARIETY-----	WT #/BU	K. WT G.	Lg %	SM %	ASH %	PRO %	NESS %	NO SEC	EXTR %	FALL %	TOTL %	SEMO	SEMO	DUST	MIXO
ALDUEA	S	63.3	42.2	63	1	1.50	12.8	113	400	75.0	62.1	77	0.59	85	2
ALTAR	65.6	38.5	62	2	1.43	11.2	116	400	74.4	61.5	47	0.57	70	3	
MEXICALI 75	63.0	45.0	78	2	1.53	11.6	104	400	73.9	60.8	37	0.63	70	4	
YAVAROS	65.1	50.3	76	2	1.41	11.7	107	400	76.6	63.7	87	0.58	65	2	
723/5	65.6	48.5	78	0	1.62	12.5	110	400	75.7	62.6	53	0.66	75	2	
723/6	63.1	41.8	66	2	1.67	12.3	105	400	75.2	57.4	40	0.64	90	3	
723/16	65.6	41.0	67	0	1.56	12.7	110	400	74.0	53.0	10	0.58	80	2	
723/19	64.2	41.7	54	2	1.53	12.7	107	400	72.5	53.8	27	0.61	70	1	
723/20	63.5	46.5	73	1	1.52	13.4	110	400	73.6	56.1	30	0.61	75	3	
723/30	64.6	46.1	80	1	1.58	12.5	114	400	73.6	56.3	37	0.60	75	3	
723/31	64.7	41.2	65	2	1.57	12.4	109	400	73.3	54.8	43	0.57	70	4	
723/41	S	63.5	47.1	75	1	1.57	13.3	103	400	75.3	56.8	30	0.60	75	3
723/44	64.4	48.5	82	1	1.51	12.6	112	400	75.7	58.9	53	0.58	70	4	

QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 24 (Cont.) STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED

----VARIETY----	STD	PRO	COL	WT	SEM	VIS	COOK	FIRM-NESS	RES	SCORE ***	DEFICIENCIES						
											TW	KW	SM	WP	TX	SX	DU
		%		G.													
ALDURA	S	11.0	8.5	33.1	5.83	6.4	1				MI					MJ	MJ
ALTAR		10.2	8.0	33.5	6.46	6.6	1				MJ					MI	MJ
MEXICALI 75		10.6	8.0	33.4	6.76	6.4	1				MI					MJ	MJ
YAVAROS		10.5	7.5	33.7	6.35	6.8	1				MI					MJ	MJ
723/5		11.1	8.5	34.3	5.88	6.3	2				MI					MI	MJ
723/6		11.2	9.5	33.5	5.29	6.3	2				MI					MI	MJ
723/16		10.9	9.5	32.7	5.18	5.7	1				MI					MJ	MJ
723/19		10.9	8.5	33.5	5.16	6.1	1				MI					MI	MJ
723/20		11.7	8.5	32.2	6.44	5.8	3				MI					MI	MJ
723/30		11.4	8.5	32.2	5.85	5.9	1				MI					MI	MJ
723/31		11.0	8.0	31.6	5.64	6.6	1				MI					MI	MJ
723/41	S	11.5	7.5	32.2	5.40	6.4	3				MI					MI	MJ
723/44		11.1	7.5	33.4	5.70	6.8	1				MI					MI	MJ

DEFICIENCIES TW KW SM WF TX SX DU SK SP VI FR
 AVG OF STANDARDS 63.4 44.6 1 13.0 75.1 59.4 80 54 11.3 8.0 5.61
 MINOR FAULTING VALUES 61.2 42.5 6 12.5 72.6 56.4 70 64 11.5 7.0 4.11
 MAJOR FAULTING VALUES 60.3 39.5 11 11.5 71.6 55.4 65 69 11.0 6.5 3.36

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DUFUM SAMPLES

1987 CROP

TABLE 25

STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED

	TEST	1000	SIZING	WHT	WHT	HARD-	FALL	TOTL	SEMO	SEMO	DUST	MIXO	
VARIETY	WT	K.WT	LG	SM	ASH	PER	NESS	NO	EXTR	SPK	ASH	COLOR	SCORE
	#/BU	G.	%	%	%	%	%	SEC	%	%	%		
ALDURA	S	63.1	40.8	.58	2	1.58	12.6	102	400	74.8	57.1	37	0.57
ALTAR	S	65.2	38.2	.55	3	1.52	11.4	110	400	74.9	59.0	37	0.60
MEXICALI 75		62.7	41.2	.71	3	1.53	11.3	85	400	73.6	58.6	27	0.62
YAVAROS		65.1	46.9	.72	2	1.46	11.7	104	400	75.3	59.6	43	0.55
724/14		63.9	41.3	.69	2	1.60	12.9	89	400	76.0	58.1	23	0.63
724/15		65.2	43.1	.68	2	1.52	12.8	97	400	74.0	56.5	47	0.55
724/17		64.0	38.0	.62	3	1.49	12.5	103	400	75.7	55.9	10	0.58
724/28		63.4	35.5	.44	2	1.71	13.0	98	400	75.6	57.4	24	0.60
724/32		64.1	41.7	.59	2	1.52	12.4	103	400	69.0	55.3	57	0.58
724/39		65.2	51.0	.81	2	1.63	12.5	107	400	72.6	56.5	27	0.55
724/40		64.3	45.7	.69	2	1.52	12.5	110	400	72.5	56.4	43	0.58
724/42		65.0	44.2	.74	1	1.57	13.0	100	400	72.7	54.5	27	0.54
724/43		64.5	43.9	.73	2	1.57	12.0	101	400	74.1	58.3	30	0.52

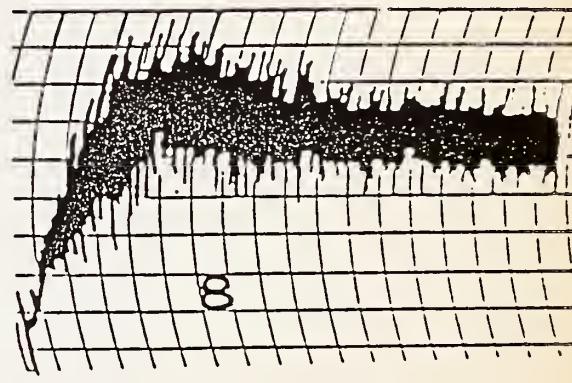
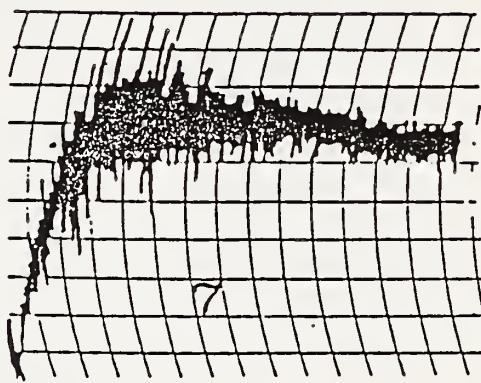
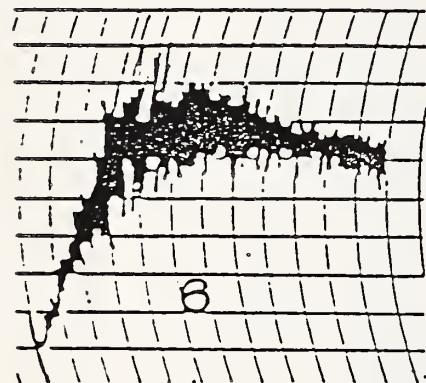
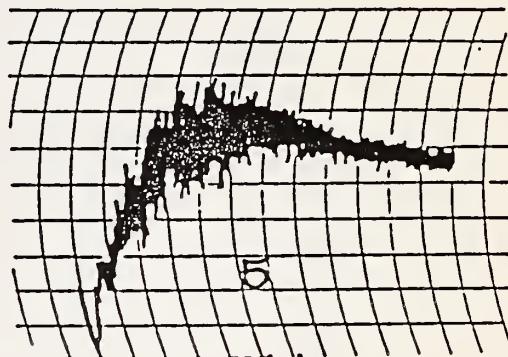
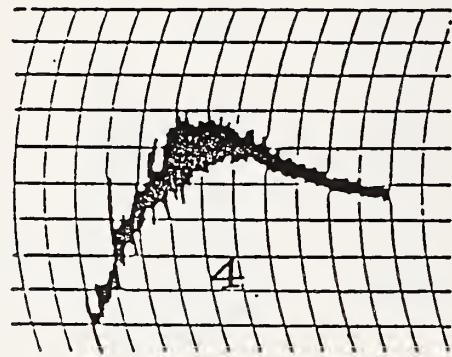
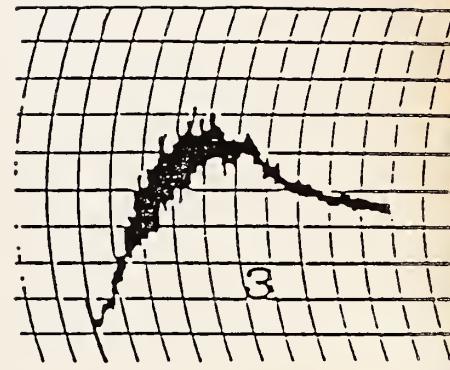
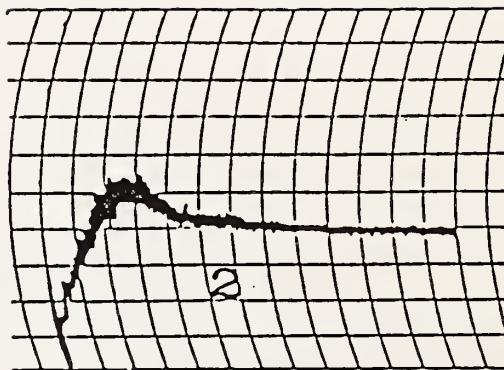
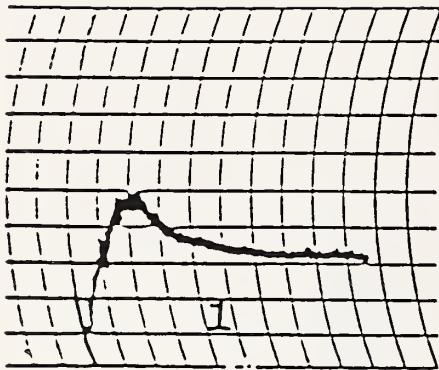
QUALITY DATA OF DURUM SAMPLES 1987 CROP

TABLE 25 (Cont.) STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED

VARIETY	STD	FRO	COL	WT	COOK	FIRMNESS	RES	***	TW	KW	SM	WP	TX	SX	DU	SK	SF	VI	FR	DEFICIENCIES		
																				% G.		
ALDURA	S	11.6	8.5	32.6	5.44	6.4	4														MJ	MJ
ALTAR	10.3	7.5	34.1	5.01	7.0	1															MJ	MJ
MEXICALI 75	10.5	7.5	33.2	5.12	6.4	1															MJ	MJ
YAVAROS	10.8	7.5	32.7	4.71	6.6	1															MJ	MJ
724/14	11.3	7.5	33.6	4.23	6.6	1															MJ	MJ
724/15	11.3	6.0	32.3	5.83	6.4	1															MJ	MJ
724/17	11.4	6.0	33.0	4.45	6.7	1															MJ	MJ
724/28	11.3	7.5	32.4	5.21	6.6	1															MJ	MJ
724/32	11.1	6.0	33.7	3.93	6.0	1															MJ	MJ
724/39	11.6	8.5	31.5	5.21	6.4	3															MJ	MJ
724/40	11.2	8.5	35.1	4.86	5.9	2															MJ	MJ
724/42	11.5	8.0	32.3	5.08	5.8	3															MJ	MJ
724/43	11.1	9.0	31.8	5.36	5.4	2															MJ	MJ

DEFICIENCIES	TW	KW	SM	WP	TX	SX	DU	SK	SF	VI	FR
Avg of Standards	63.1	40.8	2	12.6	74.8	57.1	80	37	11.6	8.5	5.44
Minor Faulting Values	60.9	38.7	7	12.5	72.3	54.1	70	47	11.5	7.5	3.94
Major Faulting Values	60.0	35.7	12	11.5	71.3	53.1	65	52	11.0	7.0	3.19

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE



REFERENCE MIXOGRAMS
DURUM WHEAT

